

Table S7

sequence name	alternate names	species names	protein accession number	refseq number	ENSEMBL ID	classification	Chr.	location	strand	Exons	start	end	remarks	sequence
CCT1-3P		Hs			OTTHUMG0000033751	CCTalpha pseudogene 3 vert	7	p14.1	+	2	42,801,030	42,802,033	Not identified in pseudogene.org	MERPLSVFGDRSTGEAICSQNVMAALIANIVKSSLGPVGLKMLVDDIGDVSITNGAKV LCELADLQDKEVGGDTTIVIAAELKNEISVGLKXKIHPTSVISGVLCKEAVRYINE NLVNTDKVGRDCLINAAKTSTSSKIGINGDFANMVDVAVFAIKYDTRGQPCYVNV VNILKAHGKSTQTESMLISGVALNCVVGSGQPKRIVNAKICLDFLQTKMLGIQVVI TDPKLDQIRQRESIDTKERIKQLVTGASILLTGGIDDMCLKYFVEAGATVRRVFR DLKRPKASGATLSTLANLKVLELARTIRQEKIKGIQLGKREKVLFLFADDMIVYLE N
CCT1-1P		Hs				CCTalpha pseudogene 1 vert	12	p12.2	+	1	19986638	19987216	Not identified in pseudogene.org	LKNTKAHTSASIIIRGANDIMCGEMERSLHDALCVKVRVLESKSMVPGGAVEAALSYLENYAT SMGSEEEIAEFARSLVLPNTLAVNAAQSDTLVTKRAFHNQAQVNPENKMLKIGLDLSNGER GDNKQAGMFEPTTVKVKSLKFATEAATILRIDDLTKLHPESKDDKHGGYDAVHSGALND
CCT1-2P		Hs				CCT1alpha pseudogene 2 vert	5	p13.1	-	2	41621756	41623646	Not identified in pseudogene.org	MEGPLSVFGDQDRSTGEVRSQNVMAASIANIVKSSLGPVGLDKMLVDDVGDVITINDGAAILRL PEVHPAAEVLCELADLQDKEVGGDTTIEALRYRNLIIYDDELGRDCLINSTETWMSKIIIGI NCDLAFANIADTVLVTYTDIRGQPRYPVNSVNLKAHARSQJESMLISGVALSCVVGSGQMPKI IVNAEIALNSSLDDVQVITDPEKLDQIRQRESIDTKERIKLATAANILIAGIDDMCLKYF VEVGAMAIRALKRDLKCIATSEGGTTLSTLANLGEETFEAVSGQVEEVQERICDDELLIK TSKACASASIIHGANDFCDEMERSLHDALCVKVRVLESKSMVLMVGDVAEAFSIYPENCETSM ESQEQLAIAESARPLVPLVNTLAVNAAQSDTLVAVLRAFHNQAQVNPENKMLKIGLDLRNGKPRHN KQAGVFEPTTVKVKSLKFATEAATILQIDDLIKLYPESKDKVHGGYDAHTGALD
TCP1	CCT1, CCTa, TCP-1 alpha	Hs			ENST00000321394	CCTalpha (real gene) vert	6	q25.3	-	12	160,119,520	160,130,731	tcp1 = Tailless Complex Polypeptide 1	MEGPLSVFGDRSTGETIRSQNVMAASIANIVKSSLGPVGLDKMLVDDIGDVTITNDGAT ILKLLVEHPAAKVLCELADLQDKEVGGDTTIVIAAELKNADELKVKQKIHPTSVISG YRLCKEAVRYINENLIVNTDELGRDCLINAAKTSMSSKIIINGDFANMVDVAVLAIK YTDIRGQPRYPVNSVNLKAHARSQJESMLISGVALNCVVGSGQMPKRVNNAKICLDF LQTKMLKLGQVVTIDPEKLDQIRQRESIDTKERIKLATAANILIAGIDDMCLKYF VEAGAMAVRVLKRLKRIAKASGATLSTLANLGEETFEAVSGQVEEVQERICDDELLIK LILKNTKARTSASIIIRGANDFCDEMERSLHDALCVKVRVLESKSMVLMVGDVAEAFSI YLENYATSMGSRQIAIAEFARSLVLPNTLAVNAAQSDTLVAVLRAFHNQAQVNPEN KMLKIGLDLSNGKPRDNKQAGVFEPTTVKVKSLKFATEAATILRIDDLIKLYPESKDD KHGSEDAVHSGALND
CCT8L2	GROL, CESK1	Hs	NP_055221	NP_055221.1	ENST00000359963	CCTtheta_L1/L2 (real gene)	22	q11.1	-	1	15,451,770	15,453,440	EST available	MDSTVPSALEPQRLANPSPRSPEEEPHLLSSLAAVQTLASVIRPCYPHGRQKFL VTMKGTVCTGCATILRALEHPAAWLLREAGTQAEASGDGTAFVLLTEALQAE QLLKAGLPRPQREAYATAEVLATLPSLAIQSLGLDPSWALHSMVMTHTLSPMDHL TKLVAHACWAIKELDGSFKPERVGVGALPGGTLEDCLPLGIAISGLCGMATVLSGAR VALFACPFPAHPANAPATARLSSPADLAQFSGSDQLLEQVQGLAAAGINAVVVLGEVD EETLTLADYIGVIVQARSWMIEIIVSEVLDPLPRLLPPRQPRGKQCRVYRELQDGLA VVFWECTGPALTVLRTGATQGLRSQAQVYHGDYALQCDQPRIPGAGATEMALA KMLSDKGRLEGSPGAFPLFAWALKYLPKTLAENAGLAVSDVMAEMSGVHGGNLLMGV GTGIIINVAQEGVWDLTKVAQGFRAVAEVLQVTVDEIVAKKSPHTEIWNPDSSKKT KKHPPPVETKILGLNN
CCT8-1P	chr1.mb145,	Hs				TCP1 theta pseudogene 4 vert	1	q21.1	-	1	145141482	145143137	Identified in pseudogene.org, processed	MALQVPAKGFQMLKEGAKHFESEEAAYRNIQACKELAQTRTAYGRN GMKMMVINYLEKLVFNDAATILRELEVQHPAAKMTVMASHMQEQEVGGD TNIVLVFAGALLEAEELLRIGLSVSEVIEGIEACRKAHEILPMLVRCSS AKNLRDVEVSSLRTSVMKCKQYGNVEFLAKLIVQACVSIFFDSGHFKVD NIRVCKLGGGITSSSVLHGMFKETEEDGTVSVDKDAKIAYVSCPDFGM ITETKTVLTKTDEELMNLKGEENLMDAVAKIADTGANVYVTGGKVA DMALHYANKYMMMLKNSKWDVRLCKTGVGATLPRLTPPVEEMGH SVYLVSEVGTQVVFHKEDEGIISTIVLQSGTDNMDIERAVDDGVT FKVLRDKRVLVPGGGATEIELAKQITSYGETCPGLEQYAIKFAEAF PRALAENSGENSGVKANEVISKLYAVPQEGNKVGLDEAVVPAVDM LEAGVLDTVLGGHWSIKLAANAAVTVLRVQVIMAKPDGPKPPSGKDW DDDQND
CCT5-1P	Human.chr13.mb78	Hs				CCTepsilon pseudogene 1 vert	13	q31.1	+	1	78382086	78382680	Not identified in pseudogene.org	ASMGLTAFD*YGPPLIHKDQRKSRMLGLEALKSHIMVANAVAHATRTSLGPKGLHKMV VDKGDVTVTNDGATILVSMVDVSHQIAQFDGGNV*VSG**NWRWNRHRCGPGWCLVRRSP GVARPKYSSNQNSRWL*AGCLLCGGTPGQDQ*QHPC*HKRHQTPDSDCKNHAGLQSGQQ LPTNG*DCCCEHPPLTDMEQRGVDFELIKVESKVGGSLEDNKRKRVIVDQVYFSPQMPK KVEDAKIVLTCPELPPKAKHKLVDVTSVEDYKALQYKEKFE*EMIQIKETGANLEI CQWGFDEANHILLQNNLPAVC*VGGPEIELIATTTGGQITTFELMARKLGFAGLVQE ISFWITTKDKMLVIEQCKNSRATITFMRRRNKIIIIEAKSLHGALCVWNLDRNHHVYG GGAAEISCALPVSQEVKCPTELEQYAMRALANTLEVIPKALSENSGMNPIQSMTKV*ASQ VKEMNLALGIDCLHKGTYNMKQ*RVTETSIGKATJDSCTNNG*NDFEE*QHS*DWRI*R
CCT5	TCP1E, TCP1 epsilon, KIAA0098	Hs	NP_036205	NM_012073.3	ENST00000280326	CCTepsilon (real gene) vert	5	p15.2	+	11	10,303,453	10,317,892		MASMGTLAFDEYGRPLIHKDQRKSRMLGLEALKSHIMAAKAVANTMRTSLGPNGLDKM MYDKDGDVTVTNDGATILVSMVDVSHQIAQFDGGNV*VSG**NWRWNRHRCGPGWCLVRRSP GVARPKYSSNQNSRWL*AGCLLCGGTPGQDQ*QHPC*HKRHQTPDSDCKNHAGLQSGQQ LPTNG*DCCCEHPPLTDMEQRGVDFELIKVESKVGGSLEDNKRKRVIVDQVYFSPQMPK KVEDAKIVLTCPELPPKAKHKLVDVTSVEDYKALQYKEKFE*EMIQIKETGANLEI CQWGFDEANHILLQNNLPAVC*VGGPEIELIATTTGGQITTFELMARKLGFAGLVQE ISFWITTKDKMLVIEQCKNSRATITFMRRRNKIIIIEAKSLHGALCVWNLDRNHHVYG GGAAEISCALPVSQEVKCPTELEQYAMRALANTLEVIPKALSENSGMNPIQSMTKV*ASQ VKEMNLALGIDCLHKGTYNMKQ*RVTETSIGKATJDSCTNNG*NDFEE*QHS*DWRI*R
CCT7	TCP1 eta	Hs	NP_006420	NM_006429.2	ENST00000258091	CCTeta (real gene) vert	2	p13.2	+	11	733,320,279	733,333,494		MPTPVILLKEGTDSSQIPQLVSNISACQVIAEAVRITLGRPMKDLIVDRGKATISND GATILKLLDVPAAKTLVDIAKSDAEVGGDTTIVIAAELKNADELKVKQKIHPTSVISG YRLCKEAVRYINENLIVNTDELGRDCLINAAKTSMSSKIIINGDFANMVDVAVLAIK YTDIRGQPRYPVNSVNLKAHARSQJESMLISGVALNCVVGSGQPKRIVNAKICLDFLQTK MLKLGQVVTIDPEKLDQIRQRESIDTKERIKLATAANILIAGIDDMCLKYFVEAGAM AVRVLKRLKRIAKASGATLSTLANLGEETFEAVSGQVEEVQERICDDELLIKLILKNT KARTSASIIIRGANDFCDEMERSLHDALCVKVRVLESKSMVLMVGDVAEAFSIYPENC ETSMESQEQLAIAESARPLVPLVNTLAVNAAQSDTLVAVLRAFHNQAQVNPENKMLKIG LDLRNGKPRHNKQAGVFEPTTVKVKSLKFATEAATILQIDDLIKLYPESKDKVHGGYDA HTGALD

CCT8L1	LOC155100	Hs	NP_001025037	NM_001029866.1	ENST000000021776	CCTtheta_L1/L2(real gene)	7	q36.1	+	1	151,773,495	151,775,165	MDSTVPSALEL PQRALNPRESPPRSPEEEEPHLLSSLAAVQTLANVIRPCYGPBGRQKFLVTMKGETVCTGCATAILRALELEHPAAWILLREAAQTQAEKNSGGDTAFVLLL TEALLOEAEQLLKFGLPRPQLREAYATAAEVLATLPSLAIQSLGLEPDSWALHSVMNTHLTPPMNHLTKLVAHACWAIKELDGSFPERVGVCTHGGTLEDSCLLQGLAISGKLGQMAAVLSGARVALFACFPAGPHNAPATAACLSPPADLAQFSKGGSDQLLEKQVGLAAAGINAVVLEGEDEETLLADKYGIVVQARSMEIYIYSEVLDTPLLRLLPQRPQKQORVYRQELGDGLAVVFEWECTGTPALTVLVRGATTQGLRSAAEQVYVHSIDAYFQPCQDRLIPGAGATEMALAKMLSDKGSRLGPNPAGLAFARALKYLPKTLAENAGLAVDVAEMSGVHQGNLLMGVGAEGIINVAQEGVWDTLVKAQGFRAVAEVLQVLTVDIVVAKKSPHQIWNPDSSKTKRRPPPEKIKLGMNN	
CCT5-3P		Hs				CCTepsilon pseudogene 3 vert	5	q22.3	+	2	114876388	114877290	SHL*VPKKVEDAKIAILTCPFEPKPKTKHKLDVTSIDHKALHKEKEKFEEMIQIKETGANLAIQWGFDD*ANHLFLQNNLPPVVRVWVGLLELIIAISTRGRIVPQSSSRPFCWPMALSENSGMNP IQITTKVRARQVKEMNPALGTDCCLKHGTNDMKRQHVIEILIGKQQTFSFATQVMRMLKIDDIHKPGESE	
CCT4	TCPD, TCP-1 delta	Hs			ENSP000000233836	CCTdelta (real gene) vert	2	p15	-	13	61,950,076	61,969,146	MPENVAPRSGATAGAAGGRGKQAYQDRDKPAQIRFNSIAAKAVADAIRTSLGPKGMDKM IQDGGDVTITNDGATILKQMVLPAAARMVLSKAQDIEAGDGTTSVVIAGSLDSC TKLLQKGIHPTIISSEFQKALEKIEIITDMSRPVELSDRETLNLSNATSLNSKVSQYS SLLSPMSVNAVMDVPADATASVLDRIKIVKLGITDDCELVEGLTVLQKVSNSGITRVEKAKIGLQFCLSAKPTDMDNQVVSVDYAMDRLVREERAYLNLVKQIKTKGCVNLLI QKSLRDALSDALHFLNKMIMVKIDIEREDIEFKTIGTKPVAHIDQFTADMLGSAE LAEEVNLNGSGKLLKITGCASPGKVTIVVRGSKNLVIEEAERSHDALCVIRCLVKKRA LIAGGGAPEELALRLTEYSRSLSGMESYCVRAFADAMEVIPSTLAENAGNPISTVTEL RNRHAQGEKTAGINVRKGGISNILEELVQPLVSVSALATLATVTRSLKIDDVNTR	
HSPD1-2P	Hsp60s2	Hs	AAK60261		ENSP000000328369	GroEL pseudogene 2	5	p14.3	-	1	21919402	21920175	MAIATGGAVFEEGLTLNLEDVQPHDLGKVGVEIVTKDDAMLLKGGDKAQLEKRIQEI GQLDVTSEYEKELNEWLAKLSOGVVLVFGGTSVDEVNEKKDRVTDALNATRAAEVGG IVLGGGFALLRCPALDLSLTPANEDQKIGMEIIRKTLKIPAMTTATNAGVEGSLIVKIM QNSSEVGYDAMVGDMMNVEKGIIDPTLKVRTLALDAAAGVASLTTAEVVVTEIPKEEKD PGMGAMGGMGGMGGGMF	
CCT4-1P	chrX.mb64, TCPD human	Hs			ENSG00000115484	CCTdelta pseudogene 1 vert	X	q12		+	3	64407520	64409590	AGGYRCSYKREKSFQINLGNIMAKEVANALRTSLQXXXXXXX XXXGDMTITYDAVTIVKQMLHFAARLAVLSKAQDIEAGDGTTSV VIIAGSLLSYNKLLQKRIHLAIISSEFKALGNKIKITDMSHMEVND KETFNSTNLLNLSMLIQHSSLSIPMSVNTVIK MDLATATTVDLRDIKIVKLGRTIDCSELVKGITQKVENSGIARVEKA IGLIQFCFSAPKTEMDNQVSDYTHVEQLKERA GDNILLTQKSLILGALSDLEHFLNKMIMVKIDIEKIEGIEFKTIGTKN PVAJDTFTNMLGAPLAKQVNLNSGKLLKTAGCAGGPKA VIVVVDH SNKLMIEKAKCSYDALCFISYLVKRNALIRYGAPEIRVALKPEYS ILRGIESYCIYDFTDDMEVTSFLAKNTGLNHSLSLEIGNQYLQEVNTV GITVQKGDILNILEEIIAQLPLVSGVLTALATESLGLKLDMMANT
CCT3	TCP1 gamma	Hs	NP_005989	NM_005998.3	ENSG00000163468	CCTgamma (real gene) vert	1	q23.1	-	13	154,545,617	154,572,307	MMGHRPVLVLSQNTKRESGRKVQSGNINAAKTIADIRTCGLPKSMKMLLDPMGGIVMT NDGNAILREIQVHPAAKSMIEISRTQDEEVGGTTSVVIAGELMSVAEHLEQQMHPT VVISAYRKLDDMISTLKKISPIVDISDMMMLNINSITTKAISRWSSLAGNALDAM KNYQFEENGRIEIDKRYARVEKIPGIEGSDCVLRGVMNKDVTIHPRRRYIKNPRVIL DSSLEYKGESQTDIETREEDFTRILQMEEEYIQQLEDIQQKPODVITEKISDLA QHYLMRANITAIRVRKTDNRIIRARACGARIVSRPELEDDVGTGAGLEIKKIDGEYF FTITDCKPKACTILLRGAKEILSEVERNLDQAMQVCRNVLLDQLVPGGASEMAVAH ALTEKSKAMTGEQWYRAVAQALEVIPRTLQCGASTIRLTLRAKHTQENCETWGV NGETGLVDMKELGIWEPLAVKLQTYKTAVETAVLLRIDDIVSGHKKKGGDQSRQGGAP DAGQE	
CCT6-1P		Hs				TCP1 zeta pseudogene 1	5	p15.2	-	1	14692965	14693954	KDGNVLFHEMQIQTHTASLIKAVATAQDDITDGTSTSNVLIKELKQEDLYISEGLHL RIITEGFAAKEKALRFLVEVIRKEMDRETLINVARLSHTKVAHALADALTEAVVDS ILAIKRQDEPIDLFMVVIMEMKHSETDTSILRGLVDHGAWHPDMKRVEDVYLKCN VSLYEYKTVNSGGFYKTAEMREKLIKAERKIEDKS*KIELKRVCGDSDKGFVAIQ EGIDPLSLDALAKEHIVLHRAKRNRNIEGLTASGEVALNSFNENPDLCHGAGLVVYQ ILGEEKFTIEKCNTRSVTLNKGPMNYTLTQLQ	
CCT2	TCP1 beta	Hs	NP_006422	NM_006431.2	ENSP000000299300	CCTbeta (real gene)	12	q15	+	14	68,266,317	68,280,052	MASLAPVNFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDAS LMVTDNGATILKNIGVDNPAKVLVDMMSRVQDDVEVDGTTSTVTLAAELLREAESLIKK IHPQTIAGWREATKAAREALLSSAVDHGSDVEVFRQDLNMIAGTTLSSKLLTHHKDHFT KLAVAEVLRKGGSNLEAIIHKLGGSLADSVLDEGFLDKKGVNQPKRIENAKLIIA NTGHDTKIKIFGSRVVRVDSIAKVAIEIEHAKEKKEKVERLHCHSINCRINQLNVPY EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPELVKLGSCKLIEVEMIGEDKLI HFGSVALGEACTIVLRGATQIILDEAERSLHDALCVLAQTVKDSRTVYGGGSEMLMAHA VTQLANRTPGKEAVAMESYAKALRMLPTIADNAGYDSADLVAQLRAHSEGNITAGLDM REGTIGDMAILGITESFQVQRQVLSAAEAEEVILRVNIIKAAPKRVPDHHK	
CCT71P		Hs			ENST000000399032	CCTeta pseudogene 1 vert	5	q15	-	1	92251627	92307366	AKTSMDIAKYQDAVGDSTSTVTLAAEFLKQVXPVVE GLHLKIIQALRTAIQLAVNDKETIVTMKTEKVEQKLLGECVCHPALSLSKLSQKAF FAKMVDVAVMMLDGLQLKMGIKKIQGGALEDSHLLPGVSFK	
CCT8	TCP1 theta	Hs	NP_006576	NM_006585.2	ENST000000389159	CCTtheta (real gene) vert	21	q21.3	-	15	29,350,670	29,367,782	MALHVPKAPGFAQMLKEGAKHFSGLLEEAVYRNIQAACKLAQTRTAYGPNMKNMVINHLEKLVTDAA TLRELEVQHPAAKMVMASHMQEQEVDGDTNPFVLFAGALLEAEELLRIGLSVSEVIEGIEACRKAH EILPNLVCCSAKNLRDIDEVSSLLRTSISMKSQYGNVEFLAKLIIAQCVSIFPDSGHFNVDNIRVCKILGS GISSSSVLHGSMVFKETEGDVTSVKDAKJAVYSCPPDGMITETKGVLIKTAEEMLNFSKGEENLMDAQV KAJADTGAARVYFTGKVDMAHLYAKVYMLNSKVDLRLCKVTGATAPRLTPVLEEMGHCDV YLSEVGDQTVVFKHEKEDGAISTIVLRGSDTNDLMDIERAVDDGVNFTKVLTRDKRLVPGGATEIELA KQITSYGETCGLEQAIKKFAEFAEIPRALAENSQVKAENEVSKLYAVHOGKNNVGLDIAEVPVAK DMLAEGILDYLGKYWAIKATNAAVTVLRVDQIMAKPAGGPKPPSGKKDWDQDND	

CCT6-4P		Hs				Tcp1 zeta pseudogene 4	3	q28	+	5	191915332	191916879	Not identified in pseudogene.org	GPSAGGFGAQQHCGAGATGHTEDQPGTQGRHEDACFAGHIKTKDSSHVPHKMQIHEM QMLLNAFLIAKVATAQDDITGGDHTYVLIIRRELLKQANLYISEGLHPRITTEGFEVER PVLDDHGRHPDVKRVEDAYLKCWVLAKEISJALHRAKSRMRLTLAGCRVALFYF DLPNDCLGLVVLVHEYLRRSSPLSFNFQVLVPPWQWQKTSVKGSAQLGVQAFDALL NYSQGEVVAEEGVWVDNYCVKQLLHSTVMTNILLVDEIMKAINRMSLKG
CCT6-2P		Hs				Tcp1 zeta pseudogene 2	11	q22.3	-	1	109013584	109014117	Not identified in pseudogene.org	NSFDLTPDYVGYAGLLCEYTFGEKFTFIEKYNYPSSVTLLAKEPNKYHTHQIKD AVRDLGRAVK
CCT6A	TCP1 zeta, CCT6, Cctz, HTR3, TCP20, TCPZ, TTCP20	Hs	NP_001753	NM_001762.3	ENST00000275603	CCTzeta (real gene)	7	p11.2	+	14	56,087,036	56,098,269		MAAVKTLNPKAEVARAQAALAVNISAAARGLQDVLRLNPGKTMKMLVSGAGDIKTKDG NVLLHEMQIQHPTASLIAKVATAQDDITGGDTTNSVLIIGELLKQADLYISEGLHPRIT EGFEAAKEKALQFLEEVKVSREMDRETLIDVARTSLRTRKVHAEADLVTEAVVDSILAIK KQDEPIDLFMEIMEMKHKSETDTSIRGLVDLHGARHPDMKRRVEDAYLTCNVSEYE KTEVNSGFFYKSAEEREKLVKERKFIEDRVQKIIELKRRKVCSDSKGFVINVQKGDIDPF SLDALSKEGIVALRRAKRRNMERLTLACGGVALNSFDLSPDCLGHAGLVYEYTLGEEKF TFEKCNPNRSVTLIKGPNKHTLQTKDAVRDLGRAVNAIDDCVVPAGAVEVAMAE ALIKHPSVKGRAQLGVQAFADALLIPKVAQNSGDFLQETLVKIQAEHSESGQLVGV D LNTGEPMAVAEAGVWVDNYCVKQLLHSTVIATNILLVDEIMRAGMSSLK
CCT6-3P		Hs				Tcp1 zeta pseudogene 3	7	q11.21	+	8	64162812	64171325	Not identified in pseudogene.org TCPZ3P & TCPZ5P are next to each other on chr. 7	MLHFFSIFPLNHLKQIQHPTASLIAKVATAQDDITGGDTTNSVLIIGELLKQADLYISE GLHPRITTEGFEAVKELHFEVVKVSREMDKTELKQVARSALCTKVHAEADLVTEAV VGSILAIRKDEPIDLFMILCSFKEGFVALHRAKRRNMERLTLACGGVALNSFDLSPDC LGHAGLVYEYTLKDAVRDLGRAVNAIDDCVVPAGAVEVAMAEALNKYLSVKGKAQ LQVQAFADALLVVPKQKQALWDNDVCVKQLLHSTCDHQHSLG
CCT6B	Cctz2, TSA303, Tcp20	Hs	Q92526	Q92526.4	ENST00000314144	CCTzeta (real gene)	17	q12	-	14	30,279,183	30,312,525		MAIAKAVNSKAEVARARAALAVNICAAARGLQDVLRLNPGKTMKMLVSGAGDIKTKDG NVLLDEMCIQHPTASLIAKVATAQDDITGGDTTNSVLIIGELLKQADLYISEGLHPRIIA EGFEAAKIKALEVEEVVTKEMKRKILLDVRTSLQTKVHAEADLVTEVVDVSLAVR RPYGIDLFMEIMEMKHKLDGTDTLQGLVDLHGARHPDMKRRVEDAFILCNVSEYE KTEVNSGFFYKTAEEKELVKAERKFIEDRVQKIIDKDKVCAQNSKGFVINVQKGDIDPF SLDLAKHIVALRRAKRRNMERLTLACGGMAVNSFDLTVDCLGHAGLVYEYTLGEEKF TFEIECVNCSVTLVKGPKNHTLQVTKDAIRDLGRAIKNAIEDGCMVPGAGAVEVAMAE ALVTYKNSIKGRARLGVQAFADALLIPKVAQNGYDQETLVKVAEHESKQLVGV D LNTGEPMAVAADAGVWVDNYCVKQLLHSTVIATNILLVDEIMRAGMSSLK
HSPD1-5P		Hs				GroEL pseudogene 5	12	q13.2	+	2	55191053	55192769	Not identified in pseudogene.org	MLRLPTVFRQMRVSRVLAHLTRAYAKDVKFGADARALMLQGDILLADAVLTMGPKGR RTVIEQSWGSPKVTGDGVTAKSIDLKDXYKNIAGLQDVANNNTNEEDGDPITATVLA RSIKAKEIEKISKGANPVEIRRGVMLVDAVIAELKQKSPVTPPEIAQVATISANGD KEIGNISDAMKVGSKGIVTKDGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIANAHKPLVIAEVDGALSTLNLNRKVLQDVAI KAPGFDNRKNQKDMAIATGGAVFGEGLTLNLEDVQPHLDGNVGEVITKDDATLLKE KGDKAQIEKRIQEIQLDVTSEYEKELNRLAKSDVAVLVKVGTSDOVEVEKDDR VRMPLMLQELLLKALYWEVVRTALLDAAGVTSLLTAEVVTEIPKEEKDPGMGAMGR MGGMGSGGMF
HSPD1-6P		Hs				GroEL pseudogene 6	3	P22.3	-	4	36783612	36785195	Not identified in pseudogene.org	VDLLDVAVITMGPKGRTVIEQSWGSPKVTGDGVTAKSIDLKNKYKNIAGLQDVAN NTNEEAGDGPITATVLAISAKIEGFEKISKGANPVEIRRGVMLVDAVIAELKQKSPVTP PEIAQVATISANGDKEIGNISDAMKVGSKGIVTKDGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIASAHRKPLVITTEDSRQLGF VTKNQLKDMAVITVAVFGEGLLHFDVQPHLDGKGVGEVITKDDAMLLKGDGIAMP KVGTSDOVEVEKDDRVDALNATRAAEEGIVLGGAMTIANKAGVEGSSIVEIKMQRSS EVGYDTRVGDVFNVMVGKIIDPRKVVRTALLDAAGVTSLLTAEVVTEIPKEEKDPGM GAMGGMGCGMGGML
HSPD1-7P		Hs				GroEL pseudogene 7	8	p23.1	+	6	7263938	7265475	Not identified in pseudogene.org	MGPKGRTVIEHWSGSPKVTGDGVTDAKSIDLKDXYKNIAGLQDVANNNTDEETGGWHY KCCCTGMLYFQIRLPEAVDAVIAELKQKSPVTPPEIAQVATISANGDKEIGNISDAM KFKGRGIIITCEFDQAYVLLHEKISSVQSVPALEIANAYKPLVIAEVDGALSTLNLNRK VGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIASAHRKPLVITTEDSRQLGF VTKNQLKDMAVITVAVFGEGLLHFDVQPHLDGKGVGEVITKDDAMLLKGDGIAMP KVGTSDOVEVEKDDRVDALNATRAAEEGIVLGGAMTIANKAGVEGSSIVEIKMQRSS EVGYDTRVGDVFNVMVGKIIDPRKVVRTALLDAAGVTSLLTAEVVTEIPKEEKDPGM GAMGGMGCGMGGML
HSPD1-22P		Hs				GroEL pseudogene 22	21	q21.3	-	3	29181851	29183334	Not identified in pseudogene.org	VDLLDVAVITMGPKGRTVIEQSWGSPKVTGDGVTAKSIDLKNKYKNIAGLQDVAN NTNEEAGDGPITATVLAISAKIEGFEKISKGANPVEIRRGVMLVDAVIAELKQKSPVTP PEIAQVATISANGDKEIGNISDAMKVGSKGIVTKDGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIASAHRKPLVITTEDSRQLGF VTKNQLKDMAVITVAVFGEGLLHFDVQPHLDGKGVGEVITKDDAMLLKGDGIAMP KVGTSDOVEVEKDDRVDALNATRAAEEGIVLGGAMTIANKAGVEGSSIVEIKMQRSS EVGYDTRVGDVFNVMVGKIIDPRKVVRTALLDAAGVTSLLTAEVVTEIPKEEKDPGM GAMGGMGCGMGGML
HSPD1-4P		Hs				GroEL pseudogene 4	6	q15	+	1	88065673	88066269	Not identified in pseudogene.org	MTPPEIAQVATISANGDKEIGNISDANKFGRKGLVTKDGLNDLEIEIGIKFDKGYSP FINTSKG*KCEFDQAYVLLNEMKISSVQVTPAL*IANPHCKSLVIAEIDREARSTFFNRLK VGLQIIAVKAPDFGDNRNKQREDTATATGGVFSSEGLALNFEAI*PRNLEKGVGVLTKYDAML LKKG
HSPD1-8P		Hs				GroEL pseudogene 8	4	q31.21	+	4	145986418	145987946	Not identified in pseudogene.org	CLSLNASRQSWGSPKVTGDGVTAKSIDLKDXYKNIAGLQDVANNNTNEEAVDGTITVT ALARSIAKIEGFEKISKGANPVEIRRGVMLVDAVIAELKQKSPVTPPEIAQVATISANGD KEIGNISDAMKVGSKGIVTKDGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISS VQSIAPALEIANAYFKDPFGDNRNQLKDMAIATGGAVFAEGLTLNLEDVQPHLDGKGV GEVITKDDAMLLKGDGIAMPKVGTSDOVEVEKDDRVDALNATRAAEEGIVLGGAMTIANKA GVEVLSLIVEIKMQSSSEVGYDAMGRDFVNMVEKIIDTTFVTRALLDASGVASLLTAE VLVTEIPKEEKDPGMGAMGGMGCGMGGML
HSPD1-9P		Hs				GroEL pseudogene 9	8	p23.1	-	5	7785932	7787502	Not identified in pseudogene.org, HSPD9P & HSPD7P are next to each other on chr. 8	CRFLVDVAVITMGPKGRTVIEHWSGSPKVTGDGVTDAKSIDLKDXYKNIAGLQDV KSGANPVEIRRGVMLVDAVIAELKQKSPVTPPEIAQVATISANGDKEIGNISDAMK KGYSPFINTSKGQKCFQDQAYVLLHEKISSVQSVPALEIANAYKPLVIAEVDGALSTLNLNRK VGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIASAHRKPLVITTEDSRQLGF VTKNQLKDMAVITVAVFGEGLLHFDVQPHLDGKGVGEVITKDDAMLLKGDGIAMP KVGTSDOVEVEKDDRVDALNATRAAEEGIVLGGAMTIANKAGVEGSSIVEIKMQRSS EVGYDTRVGDVFNVMVGKIIDPRKVVRTALLDAAGVTSLLTAEVVTEIPKEEKDPGM GAMGGMGCGMGGML
HSPD1-10P		Hs				GroEL pseudogene 10	12	p13.31	+	4	8058884	8082857	Not identified in pseudogene.org	MLLPLTFVFPQMRVSRVLAHLTRAYAKDVKFGADARALMLQGDILLADAVLTMGPKGR RTVIEQSWGSPKVTGDGVTAKSIDLKDXYKNIAGLQDVANNNTNEEAGDGPITATVLA RSIKAKEIEKISKGANPVEIRRGVMLVDAVIAELKQKSPVTPPEIAQVATISANGD KEIGNISDAMKVGSKGIVTKDGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIANAHKPLVIAEVDGALSTLNLNRK VGLNDLEIEIGIKFDKGYSPFINTSKGQKCFQ DAVYLLSEKISSVQSVPALEIASAHRKPLVITTEDSRQLGF VTKNQLKDMAVITVAVFGEGLLHFDVQPHLDGKGVGEVITKDDAMLLKGDGIAMP KVGTSDOVEVEKDDRVDALNATRAAEEGIVLGGAMTIANKAGVEGSSIVEIKMQRSS EVGYDTRVGDVFNVMVGKIIDPRKVVRTALLDAAGVTSLLTAEVVTEIPKEEKDPGM GAMGGMGCGMGGML

HSPD1-11P		Hs				GroEL pseudogene 11	5	q15	+	5	95130459	95132169	Not identified in pseudogene.org	MMKILGLPDSLADETRLGSSSHLGLCQTKIWCRCRLSNSSRCRPFRCRCSCYSGAEGKN VYASNTWEEAGDGTITATVLPVHVKVFEKTRGANPKYKRGMMALDAJALAEKKQS KPMTTLEEIQFAISANRDKSATSLFKLQKAGPOVIJAVKAPGLLIERTSLKIVLLLV VQCLEKGVGLITQEKLESLGPKVMLCSLKMVMTSLKLVFKKSLSIJAVLKVQVTSVVK TNEKDRVTDALNARAATEDIILGWCALLQFIPALDSLTPMKNKLLQGLCSVPQK LVMYSYWGFCYEGGRIGPTKDVRTALLDAWVASPLTAEVTEPKKEEKDPGMGAVGG MGGGSDS
HSPD1-12P		Hs				GroEL pseudogene 12	13	q31.1	+	6	78321372	78323341	Not identified in pseudogene.org	LVSRLVPHLPQADAKDNVFNAGDAQNMLQDQVTVAKSIDLKDKYKNIAGKLVQNVANT NKEAGDGTITATILACSTAKKALRLAKVLQWKEVWRQKIGISGAMKVKGRKVV TVKDGKTLNDELEITTEGGRAWLHFSMLINTSKGHKCFQADAYVLLSEKINSIGVQSPVAL EIASAYLPLVTAIEDIETLTLNLRKLVGLQVAAKVSFGDNGASLIVLWLLLD IITSYKELKLNELAKLSDGVAVLMVGETSDVQVKKDRDFTVNLNARAIEDGIVLL QCPALDSLTPNDFFKCVEGSLAEKIMQDSSEVYDAMIGDSVNMVEKGIIDSTNIV RTALLHAAEVASLLPTAEVVIIEPKENPGMSAIGGGDGLF
HSPD1-13P		Hs				GroEL pseudogene 13	6	q25.2	+	1	153068626	153068943	Not identified in pseudogene.org	MEIIRKTLKIPAMTIAKNASVERSLIVEKIMQSSSEVYDAMVDRFVNMVEKAIIDPTKI VRAALSDAAVASPLTAEVVTIKPKRREGPWNCGNWNWRWYER
HSPD1	GROEL, HSP60, SPG13, CPN60, HUCHA60	Hs	NP_002147	NM_002156.4	ENSG00000144381	GroEL (real gene)	2	q33.1	-	11	198,060,018	198,071,817		MLRLPTVFRQMRPVSRLVLAHLPLHTRAYAKDVKFGADARALMLQGVLDLADAVAVTMGPKGR TVIIEQSWGSPKVTGDVTVAKSIDLKDKYKNIAGKLVQDVAANTNEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDAVIAELKKQSKPVTPEEIAQVATISANGDK EIGNIISDAMKVKGRKGVITVKASDGTLLNDELEIEGMKDFRGSYSPYFINTSKGQKCE FQDAYVLLSEKISSIQSTVPALEIANAHKRLPVIIEADWDGEALSTLVNLRKLVGLQV AVKAPGFDNRNKLQDKMAIATGGAVFEGEGLTLNLEDVQPHDLGKVGVEVITKDDAMLL KKGDKAKQIEKIEQLQGLKVGVEVITKDYAMLLKGGDKSQIEKIFKKSWSKRQS DRVTDALNARAEEVGLGGCALLQVYVALYSLTPASEDQNIIEIKRIFKIAAMTIAKNA IAKNAGVEGSLIVEKIMQSSSEVYDAMAGDFVNMVEKGIIDPTKVVRTALLDAAGVASL LTTAEVVTIEPKKEKDPGMGAMGGMGGGGGMF
HSPD1-14P	RP11-206L1.2	Hs			OTTHUMG0000016753	GroEL pseudogene 14	13	q13.3	-	4	37465288	37466287	Not identified in pseudogene.org, Processed pseudogene, vega transcript available, annotated in ENSEMBL.	MRTVSRVLAPLYTWAYAKDKVCGIDAQALMLQGAELLADAVAITMGSKGRAVVIQSCGD PKVTKDGVTVEKSIDLKDYEYNSIGVGLVQDVANNTSEAGDGTITVLFVHALLPRMASRR LVKLVYKWKWGESVPALEIVANAHKTLVIVEDIDGELSTFVLRNKLQKLDLAIATG GAVFGEGLALNLEIYQPRDLGKVGVEVITKDYAMLLKGGDKSQIEKIFKKSWSKRQS YRSLNITAVEEGLVGRGCALLQVYVALYSLTPASEDQNIIEIKRIFKIAAMTIAKNA GIEGSFVKKITQSSSEVYDAMVDRFVNMVGGKIIDPTKFLKTLVLDAGFWPLC
HSPD1-15P		Hs				GroEL pseudogene 15	5	p14.3	+	4	19269394	19270353	Not identified in pseudogene.org	MEPKRRIIVIEESWGRPKVTGDVIVAHNSINLEDKYEYNGAKPVQDVSNNRREEVEDCTT TATVLAACPIVKEKELAKVLQKRSQDGRERNWHISYTVNNAKRGVITVNNKGLNDEL EIMEGMKFDQYISPYFINTSKYVFTVNNMVKPLVITAEVNLNINLKLKDKTATISGEV FEQEGFTLNLEVEPHDLEIEGVIATEDDAMLLKGNYGAKIEKICQDTPVRCHN
HSPD1-16P		Hs				GroEL pseudogene 16	11	q22.3	+	3	105082802	105083755	Not identified in pseudogene.org	MNWEELKALSLIKVLFSHALYSKGRCEFDQTYLNFKKICISQFVFLALAIADAHK PLVIITDYEALSTFILNRLKVCQIJAIVRTPGDFDRKRNQNLNDAIATGVIEQLNT IHKKESQNEHLGLDGPVVKVHGTGNVKNMEKELQNSSEVYDAMFQDPSNVVEKKI IDLAKAVRLLYVLL
HSPD1-17P		Hs				GroEL pseudogene 17	1	p35.1	+	3	34077070	34078293	Not identified in pseudogene.org	MEGLVEISKGNVPVETKRGVMLCADVTITKQKQKPPVTEIEISPTQCLQMETNKS SFLMIKVGWIVTVKTPGFGDTERPNKAIAMAWCLEESLTKLEDVQPHDLGKVGAVIV TKDDAMFLEKAIKNSGVEGSPDTSRENYAKLPRSWLCTTLDLRFKLMVEKIIINSTKVV KSALLDAASVDSQLTTAKRLPLEFLKRRRIWHG
HSPD1-18P		Hs				GroEL pseudogene 18	2	q13.32	+	5	56105684	56108736	Not identified in pseudogene.org	SFTKQGTNTQPLTPTKTRPPTVHLQTRPASPWPSSALDHLQRLKIWCLSEPNARC DSVAVAMGLNRKIIKQSGSRQTSQNKRCALVQDTAFGTNEEAGMAAGSVDKKSQV VVQWAPGEGVMEATHAVPAELRQPVTTTEGSKLNLRLQMETKRLKHSIGSAGARRKT FSPYVIDTSKSKYEFQDACTHQSLEERYIPDLGINREPECSASRLQGGACDIWDWLQ AEQRSQYISAEARSTSHGLEPREEERISQPCPLLCICPQVASTASHLDQQRP
HSPD1-1P	Human.chr5.mb135, Q96R13	Hs			ENSG00000162241	GroEL pseudogene 1	5	q31.1	-	1	135744902	135745039	Identified in pseudogene.org	MVEKIGISDPTKVVRRPALDAAGVASLTTAAQVAVTQIPKEETGLGMD
HSPD1-3P		Hs				GroEL pseudogene 3	20	q13.12	-	4	43602029	43602280	Not identified in pseudogene.org	MLPLPTVLCQMEMLPR*LAPHLRLAYTKDIKLGTDAAQLMLQGVTFNPMFL*L*Q QKGTENRVEVPK**KFLFTVAKNSDLKDK
HSPD1-19P		Hs				GroEL pseudogene 19	10	q11.23	+	1	50318868	50319008	Not identified in pseudogene.org	MVGTTLTADGMASLLTAEAVVTEPKKEKNPMMGGMGGMRGGMF
HSPD1-2P		Hs				CCTeta pseudogene 2 vert	6	q25.1	+	1	150242815	150243240	Not identified in pseudogene.org	LKEGTDSSQIPQLVNNLSTCQVIKAVRATLACGMDKLVLDGSGKATISND VATILKLLHVHLAAKTLVDIAKSQDTEVGDGTSVTLAAEFLKQKLVQKDG LHPQLNIRAVCTATQLVNTKEIAVTVKADKVKVE
HSPD1-20P		Hs				GroEL pseudogene 20	12	q21.31	-	1	78924341	78924478	Not identified in pseudogene.org	IIKPIVIRTPATDIAGVASLLSTAEFAITVISKENKFFAMDRMGV
HSPD1-21P		Hs				GroEL pseudogene 21	5	q12.1	-	6	60994430	60994876	Not identified in pseudogene.org	RPETLVVPAFEGGFRLGGWAWFQRIPIWDS*TATNKDQKTDTEIVL *NIQFKMPAVTLTRADG*EGSLTAEVNI*SPSEVSCALRGDLWRG ERMVGRGTIIVTIMVGRAAASLPETEKKVSEDPKEDPDTGRLG GGGMMGGSEF
CCT4-2P		Hs				CCTdelta pseudogene 2	7	q34	-	4	140344301	140345787	Not identified in pseudogene.org	IEAGDSTASVGTIAGSLIGSWAKLLQKGIHPTITSKSSQSKLEKIEILNSQPVELND RETLNASTSLNSQVQFQSSASSDECKSCDSFSDATGTVNLRDINQSCVILYPIV KQYMTAVKLLGKIDDCLEGLLITQKVNNSGIFQFKIQLQFCLSPARNFGNQA VSDNNEKEDVEFICTIGTPARTDQVTLTCWVLLNAMEVITPTLAENAGFESHYSN RTKKSTCLTRKKLQALVSKGYHFHGLVAQLL
CCT3-1P		Hs				CCTgamma pseudogene 1 vert	8	p22	+	2	16177578	16178178	Not identified in pseudogene.org	MLKIKKIGDEDFAFISCKCKDPKVRTILQNGKETLSKMDHMQDQAVQVNCFLDPHLV PGDGASEMAVHVLTEKSKVMTGMNNGHTLGLPLPSTPRTRMRPEGLAVLQKTSRAAM ETVLLWIDVITGHKRRKQEQQKGTGASKE
CCT6-5P	Human.chr7.mb64	Hs			ENSP00000275603	TCP1 zeta pseudogene 5	7	q11.21	+	10	64853564	64865440	Identified in pseudogene.org	MAAAKTLNPKAVAGAQAALFANISGARGLDQVLRNLNLPKPGTKIKLVSGAGDIKLTDT GVDDQPWPTCALLHEMQIQHPTASLIAKAVATAQDDITGDGTSNVLIGELLKQADYIS EAGVQWHLGSLRQLSPGFQPPASASSAVRITGMRHARLLYLSQRRGFSTCEGKALHF LEEVKVSREMDKTELKVARASLCTKVHAEADLVTEAVVGSILAIKRDDEPDLFMLE VNSGVFYKSAERKLIKAEKFIEDRVKTNRTKEESLYPDCLRHAGLVYETLCKNPNR SVTLIKGNPKPTLRSMQLCGSGAGAVEVMAEALNRYKLSVKGAKLQGVQAFADVLLV IPKQKQALWDNDCVKKQLLHSCGTCGHQSHLG

MKKS	McKusick-Kaufman syndrome protein, BBS6	Hs			ENST00000347364	MKKS (real gene)	20	p12.2	-	4	10,333,898	10,342,162	MSRLEAKKPSLCKSEPLTTRVRTLSVLKRVITSCYGPSGRKQLQHNHGGVYCTTSQS SALLSHLLVTHPLKILTSIQNHVSSPDCGLFTAILCCNLIENQRLGTPPTVIRLN KHLLSLCISYLKSETCGCRIPVDFSSQTILLCLVRSLTSPACMLTRKETEHSALILR AFLLTIPENAEGHILGKSLIVLPGKQRVIDSTVLPGIIESEVQLMRLPIKKTALK VALFCTLSGDTSDTGEVTVVSYGVSLENVLDQLNLRGQLSDHVDLVLCOQVHPS LKQFLNMRHIIADIRGVTLEPLTKMTGTQPIGSLGICPKNSYKDVCTAKFGSKHF FHLPNEATICSLLCNRNDTAWDELKTCQTALHVQLTLKRPWALLGGCTETHLAAY IRHKHTNDPESILKDDDECTQTELQIAEAFCSALESVGSLEHGGELTDMKYGHLWSV QADSPCANWPDLLSQCGGLYNSQEELNWSFLRSTRPRFPQSQCLPHEAVGSASNLTD CLTAKLSGLQAVETANLILDSYVIEDKN
BBS10	Bardet-Biedl syndrome 10	Hs	NP_078961	NM_024685.3	ENST00000313898	BBS10 (real gene)	12	q21.2	-	2	75,263,727	75,266,269	MLSSMAAAGSVKAAQVAEVLVAIVSCCVGPEGRQVLCTKPTGEVLLSRNGRRLLEALH EHPARIMVDVSSHLKKTGDGAKTFIIFLCHLLRGLHAITDREKDLPCMENIQTHGRHW KNCSRWFISQALLTFQTLIDGIMDQYLSRHFISFSAKERTLCRSSLELLEAYFCG RVGRNHHKFSIQMCDYFFKCMTCCKSGIGVFEVLDHFEVLELVNVTGLPVSDSRIAGLV LQKDFSVYRPAQDGMRMVITVETQPLFSTSGSEFLENSEAQFOTSQFWMIEKTKAMKH LHSQNVKLLISVQKPDPLVSYAGVNGISVVECLSSSEVSLRRIGLSPFVPPQAFSCQ EIPNTALVKFCKPLLRSKRYVHLGLISTCAFPHSVLCPGVHGLIEQEDALHGAKM LRQFLKDLNMYTQNDQNGTSSLFYKNSGESYQAPDPGNGSIQRYQDTVAENKDAL EKTQTYLKVHNSLIPDVELETYPYVSTPLTPTDFTQYVETLCLSLERNLTDYVEPL LKNNSTAYSTRGRNIEISYENLVNITRKGSMPLVCKLPNMGTSQYLSSSMPAGCVL PVGGNFEILLHYLLNYAKCHQSEETMVMIIANALLGIPKLYKSKTGKYSFPHTYR AVHALQNTQPLVSSQTGLSEVMGKYQLTSLVQLCKTLKTLTDMVITVKRHPQVHNQDSE DEL
BBS12	C4orf24, FLJ35630, FL141559	Hs	NP_689831	NM_152618.2	ENSG00000181004	BBS12 (real gene)	4	q27	+	1	123,882,498	123,884,627	MVMACRVNKRHRMGLQLSSFAETGRFTLGPLKSSKFIIDEECHESVLISSTVRLLESL DLTSAVGQLLNEAVQAQNNYRTGISTLLFLVGAWSSAVEECLHGVPIIIVSMSEGL NFCSEEVSLHVPVHNIFDCMDSKTFQSLQTEFSVSLCPLQVPSDTELEELHGLKQVA SQTLTISLNRPLSVEIYFPCVADNNTSRLLKNSLADTCCRQLSLHSHFRNT DNTTEGYSKPDGFOEHTVATHTYTRCNDLELAKSLGHDHSSMKLVVEAVQYQACVQ QNGCTKPFMFDIRIFCTCPLPETSSVCPCPYITVVSNNPVIKELQNPVRVILIE GDLTENYRHLGFNKSANIKTVLDSMRLEQDSSEELWANHVLIQIQKVNVLVQGNVSE RLIEKINSKRLVIGSVNGSVMQAFEAAGAVQVAYITQVNEDECVDGVCVTFWRSSPLD VDRNRRIAILLKTEGINLTVAVLTPVTAQMGIKEDRFWTCAYRLYALKEEVFLGGG AVEFLCSLCLHIAEQSLKENHACSGWLHNTSSWLASLAIYRPTVLFKLANGWQKYS TLLYNTANYSSEFEASTYIHHLQNAATDSGSPSYLNEYSKLSRIFNSISNLEQIP RVYDVVTPKIEAWRRALDVLVLLQTDSEIITGHGHTQINSQELTGFLL
CCT5-2P		Hs				CCTepsilon pseudogene 2 vert	13	q31.1	-	1	78382866	78382967	VTSADYKALQKYEKFF*EMIQIKETGANLAI
Mkks		Mm	EDL28392	CH466519.1		MKKS (real gene)	2	qF3		4	136700005	136706971	MSRLEAKKPSLCKTEPLTSEKVRSTLSVLKGVIAISCYGPSGRKQLQHNHGGVYCTTSQS SALLRNLSTVHPVKILTSVQNHVSCFSDCGLFTAILCCNLIENQRLDTPATAIKLN KYLLSLCTSYLKSEACSRIPVDFSSQTILLCLVRSLTSPACMLTRKETEHSALILR AFLLTIPESTERMRLGKSIIVPLGKQRVIDSTVLPGIIEASEVQLRLLPQKASGLR VALFCTLSGDFSNAGEGVVAHVQVLSLENVLELQLNLRGRLVTDHVDLVLCOQVHPS LKQFSSERHVMADIRGVTLMESLSKVTGATPIGSLNPIVSTIYSGVKDVCARSFGSKHF FHLLPNEATVCTLLCSNRNDTAWEEKLTCQTAMHVQLTIKPEWVLLGGCTETHLAAY VRHKVHHEAEIVRDGCTQAKLHVAEAFCSALESVAGSLEHGGELIDTKYGHLSWC QADSASVGNWSDTLRCGGLYNSQEELWSVLRSTYHPFAPQCLPQAALGSASNLTD CFTAKLSGLQAVETANLILDSYVIEDKN
Bbs10		Mm	XP_125817			BBS10 (real gene)	10	qD1	+	4	110735779	110738219	MASQGSVTAALRVAEVLSEIANRCVGPGEQVLTCTKPTGEVLLSRDGGCLLEALHLEHPLARMIVACVSS HLKKTGDGAKTFIIFLCHLLRGLHAIGKGDSTFSENIOQSHRHWKNCQWKSISQALQTFQTLGCI VDRSLRSHLVFSSSTEGRLKCRHSELELLEAYFCRGRNHRFISQLMCDYVFKMACESGEVEFL LDHCFALNVTGLPVSDSRIIDGLVLRDFSMYCPADGDIRMIVTIELQPQFSAGSEFVLSNETQ QASQCWITDRTKVMNHLRGNQVLLTSVQKPDPLVYCARLNSISVVECLSAEEVLSQRTGLSPCVL PEVASQCEISDSTLVKFCPLLRSKRYVHLGLISTCAFPHSMVLCGPVGLVEQHERAFHGFAMLRQ LFTDLNLYIITKQCCNPSPLAYDNSRNRHSPETDKYQDIAVAKSKNKLETQTHLEVYSGLGASDTELR AGKFPWSAHKTPJAPSQDEMLKCLPPERSGIIDNCLSIENHSTGNPTAEDTGETISEFHLQVSDNAGK SYTLVPMRKSLEDTCTCGYCSSTVPAGCVLPVGGSEFELMSYLLSYAKQCRQSDETVISMIAADALLGI PKLIVPKKGGKDSFPHIYMRSLHALQASQPMVSGSGGFESVAGYQQLTSLVQLCKMLKTLIDILINIKRQ PQKTADQSESEDEF
Gm443		Mm	NP_941023 XP_144240	NM_198621.2		CCTtheta_L1/L2 (real gene)	5	qA3	+	1	25022107	25023792	EST available
Bbs12		Mm	NP_001008502	NM_001008502.2		BBS12 (real gene)	3	qB	+	1	37217982	37220105	MEMACRVNRRRHVGLQQLLSFAQTGRSFLGPVAKTFITDAECHESVLISSTVRLLEGL DLTCAVGHLLNEAVQAQNNYKIGTSTLLFLVGAWSRAVEDCLHGIPPTVIVSMSEGL NSCIAVSLQVPIHNVDFDMNDTSTVYKLETVNATLCPFLQDPQSGGLQEKRFKDAT SPLLSTYLSGRHAESPFFKPNQNLTEKNTLQVKNLNLYTDFCKKSAHLSRHFNR DNSHWISRDGFLEQLESTPKVLRNDFGELAVLGHSDHSSMALAKAAVRLQWQSLCLQ QANWMAFPDFISRLTCCIPGLPETFSRVGLGYVTVMSSITLIKELQDPQPRVILIE GDLTESYRHLGFNKSANIKTVLDSMRLEQDSSEELWANHVLIQIQKVNVLVQGNVSE HLTECKMHSKRLVIGAVNGSVLQAFEAATRAVPVAYVTQVNEDECVSGSVTFWMSPHDI NRSNRIALLTAEINLITAVLTPASQMETKEDRFWCVYRLYHALKEEVFLGGGAV EFLCSSLHQLIAEQSLNRGNHACLGLWLPDSSSSMASSLSVYRPTVLSLGGWHEFLSAI MCNTATHPSAVEARTIQHVVQNAIDSGSPSYLSEYKLSGSGVHSGISDNLELVPV YDVTYFKIEAWRRALDVLVLLQTDSEIITGLVHTEMNQELDGLFL
Cct6a		Mm	NP_033968			CCTzeta (real gene)	5	F	+	13	130293315	130321693	MAAVKTLNPKAEVARAQAALAVNISAAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGKDNVLLHEMQIQ HPTASLAKVATAQDDITGDGTTSNVLIIGELLQADLYISEGLHPRITTEGFEAAKEKALQLEQKVS KEMDRETLIDVARTSLRKHVAELADVLTEAVYLSAIRKQDEPIDLFWMEIMEKHKSETDLSLRGL VLHDGARHPDMKRVENAYLTCNVLSYEKTEVNSGFFYKSAEERKLVKAERKFIEDRVKIKTELKGL VCGDSKGFVQINQKIDPFSLDALAKEGIVALRAKRNRMERLTLACGGIALNSFDDLNPCLGHAGLV YEYTLGEEKFTIEKCNPNRVTLVKGPNKHTLTQIKDAIRDGLRAVKNAIDGCVVPGAGAVEALAE ALIKYKPSVKGRAQLGVQAFADALLIPKVLQNSGFDLQTLVVKVQAEHSESGQLVGDVSLTEGPMVAE EMGWNDYCVKQQLLHSCVTIATNILLVDEIMRAGMSLKG

Cct6b		Mm	Q61390	Q61390	CCTzeta (real gene)	11	B5	-	14	82532867	82577729	MAAIKIANPGEAVTRSQAALAVNICAAARGLQDVRPLRTPGKALKMLVSGAGDIKLTGKGNVLLHEMQIQ HPTASIAIKVAAQDHTVGDGTTSNVLIIGELKQADLYISEGLHPRITTEGFDVAKTKALEVLEDEIKVQ KEMKREILLDVARSTLQTKVHAELADITAVAVDVSVAIRRPQVPIDFMVEIVEMRHKSETDQQLRGL VLDHGARHPRMRKQVRDAYILTCNVLSLEYEKTEVSSGFFYKTVEEKEKLVKAERKFIEDRVQKIIDLKQK VCAESNKGFFVINGKIDPVSLEMLAKHNIVALRAKRNRNLERLTLACGGAVNSFEGLSSEELGHAGLV FEYALGEEKFTFIEDCVNPLSVTLVKGPNKHTLIQIKDALDRDLRAVKNIAEDGCVVPGAGAVEVAIAE ALVNYKRVQVRVRLGIQAFADALLIIPKVLQAQNSGYDLQETLIKIQTKHAESKELLGIDLNTGEPMAAA EAGIWDNYCVKXKLLHSCTVIATNILLVDEIMRAGMSSLRD
Cct1	c-cpn, CCT, Cct1, Ccta, p63, Tcp-1, Tp63, TRIC	Mm	P11984	ENSUST00000089024	CCTalpha (real gene) vert	17	A2			13,109,331	13,117,933	MEGPLSVFGDRSTGEAIRSQNVMAASIANVKSLSLGPVGLDKMLVDDIGDVTITNDGAT ILKLLVEHPAAKVLCELADLQDEKVGDTTSVIVIAEELLKNADELVKQIHPSTVSG YRLACKAEVRYINENLIINADELGRDCLNTAKTSMSSKIIINGDVFANMVVAVLAVK YTDARGQPRYPINSVNLKHAHGRSQIESMLINGYALNCVSGQMPKRVINAKICLDFS LQTKMKLVQVVTIDPEKLDQIRQRESDTIKERIKLITAGANVILTTGGDDMCLKYF VEAGAMAVRRVLRKLDKCVAKASGATLSTLANLEGEETFEVTLMLGQAEVVERICDDE LILIKNTKARTSASILRIGANDFCDEEMERSLHDALCVKVRLESKVPVGGGAVEAALS LYLENYATSMGSRQIAEAFARSLVLPNTLAVNAAQDSTDLAKLRAFHNQAQVNP KNLKWIGLDLVHGKPRDNKQAGVFETPVKVKSLKFATEAAILTRIDDLKHLPECKDD KHGSYENAVHSGALDD
Cct8		Mm	NP_033970		CCTtheta (real gene) vert	16	qC3.3	-	15	87484236	87496033	MALHVPKAPGFAQMLKDGAKHFSGLLEAVYRNIQAACKELAQTTRTAYGPNMGKMNINRLEKLVNTDAA TLRELEVQHPAAKMIVMASHMQEQEVGDGTNFVLFVAGALLEAEELLRIGLSVSEVIGYEAACKAH EILPELVCCSAKNLSDVDEVSLLRTSMSKYQGSSETFLAKLQACVSIFFSDGNFVNDVIRCKILGS GIYSSSVLHGMMVFKETEGDVTSKDAIAVYSCPDFMGTETKGTVLKTAELLMNFSKGEENLMDAQV KAIAGTGANVITGGKVDIALHYANKYINMLVRLNSKWDLRRLCKTVGATLPLTPPVQEMGHCDV YLSEVGTQVWVFKHEKEDGAISTIVLRGSDTNLMDIDIERAVDDGVNTFKVLRTRKRLVPGGGATEFLA KQTSYGETCPGLEQYAIKKFAEFAEIPRALAENSQVKAENEVSKLYSVHGEQGNKNGLDIEAEVPAVK DMLEASILDYLGKWAIKLATNAAVTVLRVDQIIMAKPAGPKPPSGKKDWDQDND
Cct1P		Mm			CCTalpha pseudogene	4	qC1	-	3	67963157	67964324	MEDPLSLFGDCSSGVEICSHNVMAASIVNIGKTSLSGVLGDKLVDVDDIGDITITNYDET ILMLIIIAELLKNSDELVKQINPTSVIRGYCRACKEAICYDENIINTDKLGRDCLTN AAKTSMSKIIIGINDFFANMVVDTVLVAKYTDVVRGQPLVNSVNVNRKACGRSQIESML INAYALSCVVGPMKPLTRNWTKLDRIYRQHGENSEDPETGVHVLITSSGDDMFLK YFVESGAMSVRRVLRKDLTHMAKASRASILSLLANLEDEETFTETMLGQKVEVQERICD DELLIKNTKAHTCASVISCVLQKSTLYMVFVW
Cct71P		Mm			CCTeta pseudogene 1 vert	X	A1.3	+	5	12863162	12881543	FYDKSSGSSSKKDKDAYSFSFGRGDSRGRKSSFFGDRGSGRGRDRDLWIRTQALVSNIS ACQVVAEAVRRTLGHGCMGLIMDRGKATISNDGATILKLEIGDLSKSSFSKLPHP ILPPRQDRGVHLTPYTKWGLPLDVCCTRAKWTQVTSIARYLNQSGGWLVPVHVVC HLTRPAGLVIRGSRGDLRLTKWGGGRERRTPSGRNNETSLSIKVSLAKTCTILICSD TEQFMEETERSLHDAIMVIRRAIKNSVWAGGGAEMELSKYLWDSRTTPGKQLLNGA YAKALEIIPROLCDNAGGMMWYGVDDINHEIAENGFAPVWEPAMVRINALTAASEAACLV SMDKSIKNSHSTVDPAPTACGCRGQAHH
Cct7		Mm	P80313	P80313.1	CCTeta (real gene) vert	6	D1	+	11	85409109	85418268	MMPTPVILLKEGTSQSGIPLQVSNISACQVIAEAVRRTLGPGRMDKLVDRGKATISN DGATILKLDVVHPAAKTLVDIAKSDAEVGDGTTSVTLAAEFLKQVYPVEEGLHPQI IIRAFRTATQAVNKIEAVTVKQDKVEQRKMLEKAMTALSLSKLSQKVFVAKMNV DAVMMLDELQKLMIGIKVQGGALEESQVAVAGVAFKTFYAGFEMQPKYKPNKIAL NVELELKAEDNAEIRVHTVEDYQAVDAEWNLVYDKLEIKHQSAGKVLKSLPIGDVAT QYFADRMFCAGRVPEDLKRMTMACGGSIQTSVNALVPDVLGHQVFEETQIGGERYNF FTGCPKAKTCTILRGGAEQFMEETERSLHDAIMVIRRAIKNSVWAGGGAEMELSKYL RDSRTTPGKQLLNGAYAKALEIIPROLCDNAGFDATNLINLKRARHAQGGMMWYGVDDIN NENIADNFQAFVWEPAMVRINALTAASEAACLVSDVETIKNPRSTVPPAPSGRGRGQ ARFH
Cct12P		Mm			CCTalpha pseudogene	17	qA1	+	2	13129036	13136541	LSRIGLDDLNGKPRDRHAGAFETTVKVKSLRKRHKVDLREFVNLVYKTL RLYGETLTQQRKTKTKNNDRKQLHPESKDDKHGSYENAVHSGALDD
Cct72P		Mm			CCTeta pseudogene 2	18	E4	+	5	87401390	87403113	MSDIRACQVIAEKERTLGRHMEKLTVDGPGIATNSDGTATVLLKLDVHLATKTFVDI SKSQDAEVDGNTSMTLVVEFLKQTVNRIREIAVTKKQNKIGKRMLEKAMTLLSS KLISRQKAFKMAFDVAMFDALQPKYPGVNPISASIALNLELPEKIDNAEIRVH TVEGYQIDAKVLSKLLIGDVAIQYFADNRKFCVAVGPEEDLKRMMKACGGSIQIVDA LIPQVLGCLVFEIIEGERYNYFTTPGDKTRTIIIFCGGAEQFMEETKRVDINNEIDIA GNFQVFRPAMVHINALTTAFEAACLVSMDETI
Cct3		Mm		ENSMSP00000001452	CCTgamma (real gene) vert	3	qF1	+	13	88103257	88125467	MMGHRPVLVLSQTKRESGRKVSQSGNIAAKTTADIRTCGLPKSMNMKMLDPMGIVMT NDGNALREIQHPAAKSMIEISRTQDEEVDGTTSVTLAAEFLKQVYPVEEGLHPQI VVISAYRMALDDMISTLKIISTPVDVNNRMMMLSIINSITTKVSRWSLACNIALDAV KTVQFEENGRKEIDIKYARVEKIPGGIIEDESCVLRGVMNKOVTHPRMRYKNPRVIL LDSLEYKGESQSDIETREEDFRILQMEEEYIHOQCEIILQKQPOVITEKIGSIDLA QHYLMRANVTAIRVRKTDNRIARACGARIVSRPEELREDDVGTGAGLEIKIGDEYF TFITDCKDPKACTILLRGASKELSEVERNLDQAMQVCRNVLDLQVPGGASEMAVAVH ALTEKSKAMTGEQWYRAVAQALEVIPRTLQICGASTIRLTLRRAKHTQESCETWGV NGETGLVDMKELGIWEPLAVKLQTYKTAVETAVLLRIDDIVSGHKKGGDDQNRQTGAP DAGQE
Cct31P		Mm			TCP1 pseudogene	11	qC	-	5	90721084	90722575	MLLDPMGIVMTNDGNALGEIQVHPAVKSMIEISRTQDEEHLFEQGMHPTVVISAYRM TLGDMINTLKIISTPVDVNNYEMMLNINSSITTNKNDIKYSRVEKIPGGITEDSCIL HGVIINDVTHPVMSCYIKNPQIVLNNSSLEYKVSQTDIETIRKEDFRILQMKDECICQ QLCEDIIQRHLFCDDVITEKQISDLAQHYLWVNTATHRWVTKTDNNHFAKACSKACT ILLRGASKELSEVEHMLQDATTQVNRWQLDQVLPVGGGASEIAVHDLTEKSKAMTGE QWYRAVAQALEAMPRTWIQNCGASTICLTLRRAKHTQEQKQIWEPLAVELQTYKTAVE TEVHLWIDDIIICGHKKGGDDQNRQTRAPDADQE
Cct4		Mm	NP_033967	NM_009837.1	CCTdelta (real gene) vert	11	qA3.3	+	13	22890754	22902933	MPENVASRSGAPTAGPSRGRKSAQDRDKPAQIRFSNISAQAVADARTSLGPKGMKDM IQDQKGDVITINDGATILKQMLVHPAARMVLSKADQIEAGDGTTSVTLAAEFLKQVYPVEEGLHPQI TKLLQKGIHPTIIESEFQKALEKLELITDMSRPVQLSDRETLNLSATTSLSNKSQVYS SLLSPMSVNAVMPDAPATASVDLDRKIVKLGITDDCELVEGLVLTQKAVNSGITR VEKAKIGLQFCLSAKPTDMDNQVNSDYAQMDRVLREERAYLNLVKQIKTKGCNVLLI QKSLRDLSDLAHLFLNKMIMVVKVVEREDIEFICITGTPKPAHIDQFTADMLGSAE LAEVSLNGSGKLFKITGCTSPGKTVIVVRGSKLVIEEAERSHDALCIRCLVKKRA LIAGGGAPELALRLTEYSRSLGMEVYCRVAFADAMEVIPSTLAENAGNPISTVTEL RNRHAQGEKTTGINVRKGGISNILEMVMVQLVSVSALATLAVTRVSRILKIDVVNTR

Cct2		Mm	NP_031662	NM_007636.2		CCTbeta (real gene)	10	qD2	-	14	116490071	116500106	MASLSLAPVNIKAGADEERAETARLSSFIGAATIGDLVKSTLPGKMDKLLSSGRDAA LMVTDNGATILKNIGVDNPAKVLVDMRVRQDDDEVGDGTTVSVTLAELLRAESLIACK IHPQTIISGWREATAKAREALLSSAVDHGSDERFVQDLMNIAAGTLLSSKLTTHHKDFT KLAVEAVLRLKSGSNLEAHVTKLGGSLADSVLDEGFLDKKIGVQPKRIEMAKLIA NTGMDTKIKIFGSRVRVDS TAKVAIEIHAKEKMEKVERLKHGICNFINRQLIYNYP EQLFGAAGVMAIEHADFAVERLALVTGGEIASTFDHPPELVKGLSCJLIEVMIJEDKLI HFSGVALGEACTIVLRGATQOILDEAERSLHDALCVLAQTQVDRPTVYGGCSEMLMAHA VTQLANRTPGKEAVAMESFAKALRMLPTIADNAGYDSADLVAQLRAAHSEGHITAGLDM KEGTIGDMAVLGITSEFQVKRQVLLSAAEAEEVLRVDNIIKAAPKRVRPDHHPHC
Cct5		Mm	NP_031663	NM_007637.2	ENSMUST00000022842	CCTepsilon (real gene) vert	15	qB3.2	-	11	31520686	31531460	MASVGTAFDEYGRPFLIKQDRKSRMLGLEALKSHIMAAKAVANTMRTSLGPNGLDKM MVDKGDVTITNDGATILSMDVDHQIAKLMVELSKSQDDEIGDGTGVVLAGALLEEA EQLLDRGHPIRIADYGEQAARIAIQLHDKISDKVLDINNEPELIQTAKTLGSKVINS CHRQMAEIAVNAVLTADVMMERRDVFELIKVEGKVGRELEDTKLIGVIVDKDFSHQPMP KKVVDKAIALTCPPEPPKPKTKHLDVMISVEDYKALQYKEKFEEMIKQKIKETGANLA ICQWGFDEANHLQLNGLPAVRVWVGPEIEIAIATGGIRVPRFSELTSEKLGAGVVO EISFGTTKDKMLVIEKCKNSRAVITFIRGGNKMIIIEAKRSLHDALCVIRNLIRDRNVVY GGGAAEISCALAVSQEADKPTLEQYAMRAFADALEVIPMALSSENSGMPIQMTTEVRAR QVKESNPALGDCLHKGSNDMQYQHVIETLIGKKQQLSLATQMRVRLMKIDDIRKPGESE E
Cct32P		Mm				CCTgamma pseudogene vert	4	B3	+	3	52913471	52915552	MMGHHLVLSLNTKRESGRKVSQGNINAAKTIADIIRTCLGPKSMMKMLWDPMDIQMH PTVVINYARMALDDMISTLEKISTPVDVNNHEMMLNIINSSTITVSRWSSLACTIADL VYKTVQEFKRNKDKIDKTYRYPPELVSLAAVYAEGLVSHRVEERPRGIANFICLSRG ERQYVQGVVEEYIQQCEDIIQLKPDVITTEKIGISOLAQHYLMRANVTACIRVWKTDNHNI ARACRARIVDSKELREDDVTRAGLLEIKIGDEYFTITTYDKDCAKTSLLRGASKAEI LSEVERNLDVMQVCHNGLDLPQLVPGGASEMAVADALREKSKAMTGVQWYPYRAVAQA VEVIPTLIQNCGTSTIHLLSRAEHTQESCKTGWAKDETGLTMDMKELGIWETLAVLK QTYKTAVETELVHLWIDDIASGHKKGGDQNWQTSAPDAGQE
Cct41P		Mm				CCTdelta pseudogene 1	7	qA3	-	3	26227193	26228371	RGVCDVASMWRSESNLRESVLCQDSCTKLQVGRHPTIISSEFQKASEKDEILPDMSQ PVPISDRDRLNLSASTSLKSKVSVQSSLSLSPKAVANGTTGVEKAKIGHVPFCSSAPKTD MDNQIVVSDYAQMQLREERAYILNLVKHVKKTGCDVLIQRSLRDLSDLALHFLT GEEAIRSTPLGNPISVTLELRNRHAQGENARCSNVQKAVLINILEEMVIQLVSVSAL TLATEIAEHPEN
Cct33P		Mm				CCTgamma pseudogene vert	6	qE3	-	1	113303406	113303687	MVLVQQAYPEIRDECTTFIPEHRDPEACTTLRGAIEERLLEECNLAGCHASVSRIL LDPQLVLVPEQRWLCPCLDRKIQGHWDWYGTMAI
Cct6A1P		Mm				TCP1 zeta pseudogene 1	8	qB1.3	+	3	52361244	52362111	MECADVLEAVVNSLEAFKVDSPKPIVIFIGIMHVHKYKTYMRLTRFRFVLECKETE VGSFEYKREADKEKLLHGVETIEVTKEFMIKYSNLKARVQLRVAFADVHIIHKVL AQSGSFDILNMLRSLNTQNLISLKGKLEREMTVKQDTRHKSR
Cct6A2P		Mm				TCP1 zeta pseudogene 2	14	qE2.1	-	2	97306133	97306902	LHFVLDHAAWYPTDEEVEHSYICTCNVLSLEYEQDASPGVQSFVHAWLSNLKVRQAKF SFNLQTLKFVNIHNQJNL
Cct6A3P		Mm				TCP1 zeta pseudogene 3	18	qE3	+	1	79544122	79545468	GQLVCVDLNLGEPRIAEEICWNSSSLKQQLLHPCTVIASNTLKRAGISL
Hspd1		Mm	P63038	P63038.1			1	qC1.2	-	11	55135135	55143783	MLRLPTVLRQMRPVSRALAPHLTRAYAKDVKFGADARALMQGVDLLADAVAVTMGPKGRVIEQSWG S PKVTKDGTVAKSIDLKDQYKNGAKLVQDVANNTEEAGDGTITATVLRARSJAKEGFEKISKGANPVEI RRGVMLADVAVIAELKQKSPVTTPEELAQVATISANGDKDIGNIIISDAMKKGKRVITVKDGTLDNDEIEIEGKMFDRGYSPIYNTSKGQCFEQ DAYVLLSEKISSVQSIPTLEIANHRKPLVIIAEDVDGEALSTMVNLNRKLVGLQVAV KAPGFGDNRRKQLKMAIATGGAVFEGEGLNMLNEDVQAHLDKGVGEVIVTKDDAMLLKG KGDKAHIEKRIQETEQLDITTESEYKELNERLAKLSDGVAVLKVGGTSDVEVNEKDR VTDALNATRAAVEEGLVGGGCALLRCPALDSLKPANEDQKIGIEIKRALKIPAMTIA KNAAGVEGSLIVEKILQSSSEVGDMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLTTAEAVVTEPKEEKDPGAMGGGG
Hspd1P		Mm			ENSMUSG00000058809	GROEL pseudogene 1	11	qA5	+	1	41312239	41313954	MLRLPTVLRQMRPVSRALAPHLTRAYAKDVKFGADARALMQAVDLLADAVAVTMGPKGR TVIEQSWGSPKVTGDVTVAKSIDLKDQYKNGAKLVQDVANNTEEAGDGTITATVLRARSJAKEGFEKIS KGANPVEIRRGVMLADVAVIAELKQKSPVTTPEEIAQVATISANGDK DIGNIIISDAMKKGKRVITVKDGTLDNDEIEIEGKMFDRGYSPIYNTSKGQCFEQ DAYVLLSEKISSVQSIPTLEIANHRKPLVIIAEDVDGEALSTMVNLNRKLVGLQVAV KAPGFGDNRRKQLKMAIATGGAVFEGEGLNMLNEDVQAHLDKGVGEVIVTKDDAMLLKG KGDKAHIEKRIQETEQLDITTESEYKELNERLAKLSDGVAVLKVGGTSDVEVNEKDR VTDALNATRAAVEEGLVGGGCALLRCPALDSLKPANEDQKIGIEIKRALKIPAMTIA KNAAGVEGSLIVEKILQSSSEVGDMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLTTAEAVVTEPKEEKDPGAMGGGG
Hspd2P		Mm				GROEL pseudogene 2	4	qC7	-	1	105808716	105810383	MRPVSPPELLHLTQAYAKDQKFDVADAGALMQGVDLLADAVAVTMGPKGRAVIEEQNWGS PKVKNVTVTKSIDLKDQYKNGAKLVQDVANNTEEAGDGTITATVLRARSJAKEGFEKIS KGANPVEIRRGVMLADVAVIAELKQKSPVTTPEEIAQVATISANGDK DIGNIIISDAMKKGKRVITVKDGTLDNDEIEIEGKMFDRGYSPIYNTSKGQCFEQ DAYVLLSEKISSVQSIPTLEIANHRKPLVIIAEDVDGEALSTMVNLNRKLVGLQVAV KAPGFGDNRRKQLKMAIATGGAVFEGEGLNMLNEDVQAHLDKGVGEVIVTKDDAMLLKG KGDKAHIEKRIQETEQLDITTESEYKELNERLAKLSDGVAVLKVGGTSDVEVNEKDR VTDALNATRAAVEEGLVGGGCALLRCPALDSLKPANEDQKIGIEIKRALKIPAMTIA KNAAGVEGSLIVEKILQSSSEVGDMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLTTAEAVVTEPKEEKDPGAMGGGG
Hspd3P		Mm				GROEL pseudogene 3	14	qE2.3	+	5	101742761	101744429	MRPVSWALPTLLTQAYAKDQKFDVADAGALMQGVDLLADAVAVTMGPKGRVIEEQNWGS PKVKNVTVTKSIDLKDQYKNGAKLVQDVANNTEEAGDGTITATVLRARSJAKEGFEKIS KGANPVEIRRGVMLADVAVIAELKQKSPVTTPEEIAQVATISANGDK DIGNIIISDAMKKGKRVITVKDGTLDNDEIEIEGKMFDRGYSPIYNTSKGQCFEQ DAYVLLSEKISSVQSIPTLEIANHRKPLVIIAEDVDGEALSTMVNLNRKLVGLQVAV KAPGFGDNRRKQLKMAIATGGAVFEGEGLNMLNEDVQAHLDKGVGEVIVTKDDAMLLKG KGDKAHIEKRIQETEQLDITTESEYKELNERLAKLSDGVAVLKVGGTSDVEVNEKDR VTDALNATRAAVEEGLVGGGCALLRCPALDSLKPANEDQKIGIEIKRALKIPAMTIA KNAAGVEGSLIVEKILQSSSEVGDMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLTTAEAVVTEPKEEKDPGAMGGGG
Hspd4P		Mm				GROEL pseudogene 4	8	qB3.1	-	3	64965611	64967286	MGPKRRLTIEEQSQSPKVTGGEVITKPIDLKDCKTIRSKLVQGVANNTEEAGDGTITATVLRARSJAKEGFEKIS KGANPVEIRRGVMLADVAVIAELKQKSPVTTPEEIAQVATISANGDK DIGNIIISDAMKKGKRVITVKDGTLDNDEIEIEGKMFDRGYSPIYNTSKGQCFEQ DAYVLLSEKISSVQSIPTLEIANHRKPLVIIAEDVDGEALSTMVNLNRKLVGLQVAV KAPGFGDNRRKQLKMAIATGGAVFEGEGLNMLNEDVQAHLDKGVGEVIVTKDDAMLLKG KGDKAHIEKRIQETEQLDITTESEYKELNERLAKLSDGVAVLKVGGTSDVEVNEKDR VTDALNATRAAVEEGLVGGGCALLRCPALDSLKPANEDQKIGIEIKRALKIPAMTIA KNAAGVEGSLIVEKILQSSSEVGDMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLTTAEAVVTEPKEEKDPGAMGGGG
Hspd5P		Mm				GROEL pseudogene 5	8	qC2	+	6	85271516	85279593	MRLMSLALAPLLTQAYAKDQKFDVADAGALMQGVDLLADAVAVTMGPKGRVIEEQNWGS PKVKNVTVTKSIDLKDQYKNGAKLVQDVANNTEEAGDGTITATVLRARSJAKEGFEKIS KGANPVEIRRGVMLADVAVIAELKQKSPVTTPEEIAQVATISANGDK DIGNIIISDAMKKGKRVITVKDGTLDNDEIEIEGKMFDRGYSPIYNTSKGQCFEQ DAYVLLSEKISSVQSIPTLEIANHRKPLVIIAEDVDGEALSTMVNLNRKLVGLQVAV KAPGFGDNRRKQLKMAIATGGAVFEGEGLNMLNEDVQAHLDKGVGEVIVTKDDAMLLKG KGDKAHIEKRIQETEQLDITTESEYKELNERLAKLSDGVAVLKVGGTSDVEVNEKDR VTDALNATRAAVEEGLVGGGCALLRCPALDSLKPANEDQKIGIEIKRALKIPAMTIA KNAAGVEGSLIVEKILQSSSEVGDMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLTTAEAVVTEPKEEKDPGAMGGGG

Hspd6P		Mm			GROEL pseudogene 6	1	qC1.1	-	5	49455871	49457564	Not identified at pseudogene.org	MRPVSALAPHLTWAYAKDIKFNVFNKDKYKNIHGHLQVAVANNTEEGADGTTITVLA WSIAKEDFEKSKVNSKMPFLLSEMKFSSVQSVSALKVNAHQMPLVIAEDIDRVAL RSLINLKLQCLQGLNQLNGDVAHVHVGKLGVEVLTKEADAMLLKGGKDGKHVHEKHQIEIT EQLDITLALDSLKTNEQKQIGIEIKRALKIPAMIAKADAGVGSGLTVDKLQNSSEVG YDAVLEDFVNMVEKGIIDLTKVIRITLLDAAGVAFLLTA
Hspd7P		Mm			GROEL pseudogene 6	3	qE3	-	3	77889757	77891210	Not identified at pseudogene.org	MGRGRGTVIIIEESWGSTKVTKDGITEAKSIALQDEYKNTGAKLVQDVANNTEEGAGDGT YATVTKQSKPMALPEFAQVATISANGVKDGTGNISDAMKVKGRKWFLLGKDGKTLNVEI ENIEKQFDRGVISYVAKLEKLNKQVIAIRASDQVTVLKVGGTSDVEVNEKDRVTDILS ATGAAVEEGLVGGCALLRCVPALDSFKPNSQEDQKIGIEIKRALKIPMAIAKNAADDK GSVIVEQLQSSSEVGYDKLGDFFTWCKRESLIQKFNCLNGCCWGGGLLAHY
Hspd8P		Mm			GROEL pseudogene 7	4	qC4	-	5	89108911	89111283	Not identified at pseudogene.org	LALPLTGSYAKDVKFGVDVRLALQNVDLLADVLAVTMGPKGRVTIIGQSWGLSKVTKDG ACSTAKKAFERISKANPVTQRGVMEIIVRFLPQMETSIGNIISDAMTKAGRKGVVGTG KDGKSLDDELEVTEHMLDRGYYPFNISKSYGVTPALKTANAHWKPVLVIEDDGEA LSTMVLNWKVGLQVAVRAPGFGDNRNKQLKICQCYCVTRADVEESVLRREGCVLLQ CMPVLDLSPANGNQKIGIEITKALNIPAMTMOR
Hspd9P		Mm			GROEL pseudogene 8	12	qA1.1	-	1	11672585	11673644	Not identified at pseudogene.org	SNLTLKPLTTPPEIAQVATISANGNKVDGNISDVMKKGGRKGVITVKGDKSLNDKL EIKGMKFNRYSPYFINTSGKQKCEFNAYVLLSEKFSVQSVPEIANAPRTPLVI IAEDGDGVEVSTLVNLRKVLQVIAVKAPFRDRNRKNQLKFMVAVTTGGVSGEGLHLN LEDVQAHIDIGKVEVITKDDAMLLKGGKDKAHIEKQIEIEQVDTITTEYEKEMNKQ LPKLSDRVAVLK
Hspd10P		Mm			GROEL pseudogene 9	X	qC3	+	2	93743990	93745672	Not identified at pseudogene.org	DFANNTNKEAGDGTIIISVLAIVLAQSIKNGSEKISGANPVIKVRGVLAVDAVIVLKKQF TPEEIDHIATISENGKNDIGNISDATTKIKRLLTVKAPGFGDNKNKQPMATGGAVFK EALNLEEDVKTDLGKVEVITKDDATLLKGGKDKVQIEKNGCKSLGYSYTSQVLI KRES
Hspd11P		Mm			GROEL pseudogene 10	6	qA1	+	3	12515616	12517225	Not identified at pseudogene.org	DVANNINEEAGNITIAIVLAQSIKNGSEKISGANPVIKVRGVLAVDAVIVLKKQF EPVATPEEISQVATSPANGDQVIEIENIDAMNKVGRKGVITGDFIFHLLTYKQSLVII AKVDREALYTPVSNRLKVGIVVAIKASGLVDRNRKQLTDMLLPLVDPNDQKIGIEII KRILKIPAMTIAKNAGVEGPFVIEKIQSSSEVGYDAMLGDFVNVVENGIIISDSTK
Hspd12P		Mm			GROEL pseudogene 11	1	qC1.1	+	2	45234912	45235851	Not identified at pseudogene.org	MTTLEEVQVAVISANGDKNIGNISDAMKVKGRKGVITVKGDKLHDEIEIEGKFEI GCISTYFINTSKEALGDDPEDVDGETLSTLVNLRVGLQLVAKAPGFGDNKNKQNLIM AIATGGVMFGEED
Hspd13P		Mm			GROEL pseudogene 12	15	qA2	-	2	24133639	24135093	Not identified at pseudogene.org	MKHDRGYISSHFDITYGQYCFQDAYALMSEKIPSGVALLKVKVNEKDKRVTGAFNAV RAVVEEGLVTRTRALLQCPALDSLKPAIEDQKICIEIKHSEKFLHSKVGCDPMLGDF VNMVEKGIINSTKIVRLL
Hspd14P		Mm			GROEL pseudogene 13	2	qC3	+	1	79001216	79001752	Not identified at pseudogene.org	MRPVSRALALHLTWVYTKDVKFGVDARALMQCVDLLADAVAVTMGPKGRVTIAEQSWQV PKMLPIAQKKEAEDGTTATVLAHSMKAKEGFKGFNPFVIEIQK
Hspd15P		Mm			GROEL pseudogene 14	9	qA1	+	1	12819585	12820103	Not identified at pseudogene.org	GVAVLKVGGRSDVEVTEKDRVTDANAIRAAVEEGLVGRGCSLLWCISALDSLKPAN EVQKIGIEIKRALKIPAMIAKNAIEGSLIEKIPQSSSKVSYGAMLGDFVHMVEKII DPTKA
Hspd16P		Mm			GROEL pseudogene 15	3	qE1	-	1	61872231	61873436	Not identified at pseudogene.org	MGFGEEGWNLNPEVDQTHVLQKVEVITKDDDKLLEKCDKIQFEKCIQEMTKQLEITI SEYEKELNEQLAKLSGQVVLKQVGT
Hspd17P		Mm			GROEL pseudogene 16	1	qA1	+	2	5053347	5054702	Not identified at pseudogene.org	DKLVQVAVINTEEACDGTIATVLSWJANQGFEEKISKVSKVTKPIEENQVAMISANG KDFEGNIVCDAMKAGRMIIITVMDGKTLNDELEIEGMSKGFIPNLSIRGRYTSKR LKIPAMTSAKNAVVEGVLVVEKIQSSVEFGYDAILGDFVNMVGRGIIIEPTV
Hspd18P		Mm			GROEL pseudogene 17	8	qB2	-	1	58011087	58011631	Not identified at pseudogene.org	MDSLKPNGDLKISIKIKRALEVTMTIENAVGVGGSIIIEIQLQSSSEVGYDAMLGDF MNIENGIIDQTKVLRSLDASGVASLLTTEAVVIEPKMEVPMGGMAMAR
Hspd19P		Mm			GROEL pseudogene 18	16	qC1.3	+	1	61460831	61461298	Not identified at pseudogene.org	MIPKKTGVGGSWIDKILQSSSEVGYDGLDFVNMVVEKGIIDTKVVRPALDARVAS LTTVNAVVTPEAPKEEDTGSAMGGMV
Hspd20P		Mm			GROEL pseudogene 19	2	qE1	+	2	98441180	98441466	Not identified at pseudogene.org	DQERGIEIKRLLKIPAMIAKNAIEVGYDAILGDFVNIIVEKGIIDPTKV
Hspd21P		Mm			GROEL pseudogene 20	4	qC5	+	2	91375464	91376660	Not identified at pseudogene.org	MPLKGGKGDKAQIERCTQECIPAFLLNPNANENKQIGIEITKRLKISAMTAAMSII
Cct81P		Mm			CCTeta pseudogene 1	2	qC1.1	+	1	51795721	51795882	Not identified at pseudogene.org	MTHQHYERSGSASPCTNDIMASLQQQQVGVMSAHRVNTLVLTLAHPSISISHDSS NFNNEHRLVLDIDKGEENLDAQSNITTVGSGEDVITGDVKNAMMDLHYASKYNTINRTF LQGMEGTEFASIKIEMRGWLHETHVTKEGAKHITPYGEPRLQEQVTRKLLVAFEAIIW ALSEISRKANDW
Cct73P		Mm			CCTeta pseudogene 3	1	qA4	+	4	20811426	20812537	Not identified at pseudogene.org	TTLPHGNLLWMAKAKQQLLLKLDGGHPAAKTLVDIAGSEDTSDGTTVVILLAEFL LKQSGFEMQPKNYENPTIASFVNLKKAEDNAEIRVHTHQALDKARNILYDKLVYF ADRNMFACAGHWPEEDLKRMMACGGSTQNGNALIPDLVGHSGVYFETQIRGKRCNFFTG FPKAKTCTILC
Cct74P		Mm			CCTeta pseudogene 4	11	qB1.2	-	1	48381857	48382517	Not identified at pseudogene.org	MKPTPVLIEKGTDSQGPQLVSNKSACQVIVEAVRITLGHGMDKLVDGRGKATISN DGATILKPNFLKHVKPYVEEGLHPQIIHTATQLAVNKIIAIVTKQDKVEQRKMLE KCAVATLSSKMISQKAFFTKMEPAMVHINTLTAASEAACLVSMDETIKNPRST
Cct75P		Mm			CCTeta pseudogene 5	13	qB1	+	1	58647550	58647741	Not identified at pseudogene.org	NTFSSAKFETRPKESKNKIALNVELELKAEDNAEIRVHT
Cct82P		Mm			CCTeta pseudogene 2	3	qB	-	3	35774568	35782271	Not identified at pseudogene.org	PGVQLNVLTVFTHDEACSLIWRHILYMEGNGKYIQQQIISYDTPGLPQYAFKFTF LFAIPWALALDQGFVAVKDMLEAGAVSLHLGKYKAAHGYCCKPCNDQSGHHPKAGGS KPPCGKKTGMHTKI
Hspd22P		Mm			GROEL pseudogene 21	17	qC	-	1	48192945	48193097	Not identified at pseudogene.org	KFGADARALMQVDLLADAVAVTMGPTGRVTIIEQRWGSCK
Mkks		Rn	NP_001008354	NM_001008353.1	MKKS (real gene)	3	3q36	-	4	124975607	124981825		MSRLEAKKPSLCKTEPLTSERVSTLSVLKGIASCYGSPGRKQLHNLGGCVCTTSQSSALLRNSVT HPILKVLTSVONHVCFSDCGLFALICCNLIENIQRIQLTPTAIKLNKYLGLSILYKSEACRSRI PVDFRSTHTFLNLSILTSKPAACMLTRKEIDHIGALIKAFLLTIPESAERMLGKSIIIVPLKGGQVT DSTVLPGLIEASEVQLRLLPTQKLSLHVALFCASLSDGFSNAGEGLTVVHYQVSLNAVLEQLNLG RQLVSDHVDLVLCQKVIHPSLQKFSLEHQIIAIDRVGVTLMPELSKVTGATPIGSLYPIVSTTYGSKVD RSARFGSKYFFHLPNEATICSLLSRNDTAWEEELKTCQTAMHVLQTIKEPWWLLGGCVETHLAAY IRHKVHNEAEIIVRDDGCSQAEIHATEAFCSALESAVSLHDGGEILIDMKYGHVWSCPADSASVGNW PDLTSRGCGLYNSQDELSWSVLRSTYHPFAPQTLCPQAASGSVSNLTVDSFTAKLSGLQVAVETANLIL DLSYVIEDKN

60748	RGD1560748_predicted	Rn			BBS10 (real gene)	7	q21	-	2	50317911	50320406	MASQSVTAALRVAEVLTIANRCVPEGGVLCTKPTGEVLLSRDGGCLLEALHLEHPLARMIVACVSS HLKKTGDGAKTFIIFLCHLLRGLHAIGKEKDSFTSEDIQSHERHWKNCQWKSISRALLRFQTLGCI VDQHLRSHYLSAFSSSAEGRITLCRRSLELLLEPYFCGRVGRNRHFRISQLMCDYVFKMACESGIEVFEF LDNCFVNLNVGVTGLPVSESRIVDGLVPRDFSVYCPADGGIRRMVITVEIQPLFSSSSSEFVLDSEQF QASQSWIMDRITKTVMHLRSHNKKLLSSVQKQDVLTYCARLNSISVVECLSSSEVVLQRITGLSPCVL PELASQCHHSDIARVREKCRVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLVGLV LFTDLDLNCMIQTKERNRPSPLADSSNRESSHSPKTKYQDVVAKNKDKLETOITRELVYPRGLASDTELL TCKLWSAHKHTSIDPSQNEIPKRLSPEKSRIVDNCVEFLENPTGNPTAEDTRTEMSEFKHLQVADNPGE GYTLPTVYKSPDTPCSQAHCSAVPAGCVLPVGGHFLMHFYLLNYAKQCRQSDDAVISMILANALLGV PKILYKPKKGDSPHYTRALRALQTRQPIVSGSGFESVAGKYQLLTSVLQCLMKLITDILINVKRQ PQKTGDQSEDEL	
125233	MGC125233	Rn	NP_001032883 XP_575319		CCTtheta_L1/L2 (real gene)	4	q11	-	1	5004090	5005772	MAVSSSQVTQTKVQSDLELPQRLKLEKNPESQGEELCLIRATAAAQTLASIRSCYGPYGLQKFLVS AQGETVCTGHAAALIKALEHPAARFVQELAQTAENITGDGTAFVLLTEALLAQAYLLWAGLTPPAQL REAFVTAIEVLTAIPLSALCSGLPEOPSWALYSVMSTHTLSMAEVLTKLVAQAQCVISREPFNSFKPES IIVCLQGLGILDSRIIPGAIACGLCKGRKTEVLNDARVALFNCFPGSPNFAPATRLRSSPEELIRFK QTEQVEMIEAELAMMGINVAVLGEVNERSDVQDGYCVGMVQVSKRKEIYVLSDKLWPLNRLPPE PGKCHKVVMEFEGESALIMFEWEREIAFVLSVLRGPTQLGRGAEQAVYVIGDAFSQLCQDRPLPAG ATEMALARMLVDKGRSLDGNPLAFQAFQALSSPLTKLAENAGLAQVLSAEMSGYHQAQNFVIGVGD GLNVVAQEGEWDILRTKAQGLQAVTGLVQLVTVQIIVARKTPRYRLIPQSAQNANTSSPLRAKFFGY E	
61608	RGD1561608_predicted	Rn	XP_345203		BBS12	2	q25	+	1	123866726	123868843	MEMDYVLRNRRHVGLQQLSSFAQTGRSFLGPVKATKFTDAECHESVLVSTVRLLEGL DLTCAVGHLLNEAVQAQNVYTKGASTLLFLVAGRAWRAVEDCHLGVPTTVIVSVMSEGL NSCIEAVVSLQVPHHVDHIDNTSTVYKLETVDSLCPFLQVPSGSLLEEKHDFKDAT SOLLSTYLSGRRAKSPFEFFKQAKVETENTSQALKNLTYDSFCRKSALTHSRHFNRTE NSHWISRPDGFLEHLRSTPKVLRNCDLDELAVLGHSHGDSMTLAKAAVRLQWAVLQCP ANCMAPMFDISRLLTCCPLPETFSVCLVGYVTVTMTSITLLELQDQPPRVLILEG DLTESYRHLGFNKSVMNIRKSDSGLSESTEELVTRNRLVLEVLQFNVNLILVQGSVSEH LTEKCMHSKRLVIGSVNGRVLQAFEAATRAVPVAYTVQNEDCVGNVGSVTVFTGPHDIN RSNREILLTAEGINLITAVLSPASQAQMEKEDRFSVNLRLCHALKEKVFJGGVAF LCLSHLQILAEQSLNKGHMLCLGLVPSSSWMASSLSVYRPTVLCGLAGWHEFLSAIMC NTATYPSAVEASTFIQHVVQSAADSGSPSSYILSEYSELSSGLFHSJDSNNLELVPVRVD TVTPKIEAWRRALDVLVLLQTDSEITGLVHTQMNSQELDGLVFL	
Cct6a		Rn	NP_001028856 XP_213765	NM_001033684.1	CCTzeta (real gene)	12	12q13	+	14	27992366	28002203	MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRLNLGPKGTMMKMLVSGAGDIKLTGDGNVLLHEMGIQ HPTASIAKAVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEAAEKALQLEQKQVKS KEMDRETVLIVARTSLRKHVAELADVLTEAVDVISLAIKDKDEPIDLFMVEIMEMKHSSETDTSLRIGL VLDHGARHPDMKRVENAYILTCNVSEYEKTEVNSGFFYSAEEREKLVKAERKFIEDRVKIKVELKKK VCGSDKGFVVIINQKGDIPSLDALAKEGIVALKRKRMRNRLTACGGIALNSFDLNPDCGLGHAGLV FEYTLGEEKFTIEKCNRPSTVLLVKGPNKHTLQIKDAIRDGLRAVKNADDDGCVFVAGAVEALAE ALIKYKPSYKGRAGLVQAFADALLIPKVLQNSGRLQETLVKQAEHSESGVLGVDLNTGPEMVA EMGVVDNYCVKQLLHSTVIATNILLVDEIMRAGMSSLG	
L63658	LOC363658	Rn	NP_001014250 XP_343949	NM_001014228.1	CCTzeta (real gene)	10	q26	-	11	72107176	72144991	MAAIKIANPGAEVTRSQAAALAVNICAARGLQDVLRLPSLGPGLKMLVSGAGDIKLTGDGNVLLHEMGIQ HPTASIAKAVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEAAEKALQLEQKQVKS KEMKREMLLDVARTSLRKHVAELADVLTEAVDVISLAIKDKDEPIDLFMVEIMEMKHSSETDTSLRIGL VLDHGARHPDMKRVENAYILTCNVSEYEKTEVNSGFFYSAEEREKLVKAERKFIEDRVKIKVELKKK VCGSDKGFVVIINQKGDIPSLDALAKEGIVALKRKRMRNRLTACGGIALNSFDLNPDCGLGHAGLV FEYTLGEEKFTIEKCNRPSTVLLVKGPNKHTLQIKDAIRDGLRAVKNADDDGCVFVAGAVEALAE ALIKYKPSYKGRAGLVQAFADALLIPKVLQNSGRLQETLVKQAEHSESGVLGVDLNTGPEMVA EMGVVDNYCVKQLLHSTVIATNILLVDEIMRAGMSSLRE	
Tcp1		Rn	NP_036802		CCTalpha vert	1	q11	-	12	42103629	42111145	MEGPLSVFGDRSTGEAIRSQNVMAASIANIVKSSGLPGVGLDKMLVDDIGDVTITNDGAT ILKLEVEHPAAKVLCELADLQDKEVGGDTTSVIVIAEELLNADELVKQKHPTSVISG YRLACKAEVRYNENLINTDELGRDCLINAAKTSMSSKIIINGIDFFANMVDAVLAVKVF YTDIRGQPRPNVSNLKAHGRSQIESMLINGYALNCVVGSGQMLKRVNNAKICLDFSLQKTKM LQTKMKLVQVYVITDPEKLDQIRQRESIDITKERIQKILATGANVILTTGGIDDMCLKVF VEAGAMAVRVLKRDILKRIAKASGASLSTLANIEGEEFTFATMLGQAEVVEQERICDDE LILKNTKARTASISILRGANDFMCEMERSLHDALCVKVRVLESKSVPGGGAVEAALS IYENYATSMGSRQALAEAFARSLVPTNLAVNAQDSDTLVAKLRAFNEAQNVPNR KNLKWIGLDLVHGKPRDNKQAGVFETIVKVKSLKFATEAATILRIDDLIKLHPESKDD KHGGYENAVHSGALDD	
Cct8		Rn	XP_213673		CCTtheta (real gene) vert	11	q11	-	15	27234460	27245292	MALHVPKAPGFAQMLKDGAKHFSGLEEAVRYNIQACKELAQTTRTAYGPNMNMVNRLEKLFVTDAA TILRELEVQHPAAKIVMAASHMQEVEQDGTNPLVLFAGALLEAEELLRIGLSVEVITGYEIAKKAH EILPDLVCCSAKILRDVDESSLRTSISMKQYQSEFEAKLISQCVSIFPDSGNFVDIRVCKLGS GVYSSSVLGMVFKKETEGDVTSMKAKIYSCFPDGMITKGTVLLIKTAEELMNFSGKEENLMDAQV KAJAGTGANVIVTGGKQVADMALHYANKYINIMLVRNLSKWDLRRLKGTGATVALPKLTPVLEEMGHCDV YLSVEGDQTVVFKHEKEDGAISTIVLRGSDNLMDDIERAVDGVNTFKVLRDLKRLVPGGGAETEFLA KQITSYGETCPGLEQYAIKFAEAEFAIPRALAENSQVKAENEISKLYSVHQEGNKVGLDIEAEVPAVK DMLEASILDYLGKYWAIKATNAVTVLRVDQIIMAKPAGPKPPSGKKDWDQDND	
Cct1P		Rn			CCTalpha pseudogene 1	4	q34	-	1	122326746	122328035	Not identified at pseudogene.org	EAVRYNENLINTDELGRDCLINAAKTSMSSKIIINGIDFFANMVDAVLAVKYYDTRG QPRYPVNSVNLKAHGRSQIESMLINGYALNCVVGSGQMLKRVNNAKICLDFSLQKTKM KLVGQVITDPEKLDQIRQRESIDITKERIQKILATGANVILTTGGIDDMCLKVFYEAAGAM AVRVLKRDILKRIAKASGASLSTLANIEGEEFTFATMLGQAEVVEQERICDDEILIKN TKARTASISILRGANDFMCEMERSLHDALCVKVRVLESKSVPGGGAVEAALSIVLENY ATSMGSRQALAEAFARSLVPTNLAVNAQDSDTLVAKLRAFNEAQNVPNRKMLKWI GLDLVHGKPRDNKQAGVFETIVKVKSLKFATEAATILRIDDLIKLHPESKDDKHGGYE NAVHSGALDD
Cct2		Rn	NP_001005905 XP_216891	NM_001005905.1	CCTbeta (real gene)	7	q22	-	9	56394922	56402261	Not identified at pseudogene.org	MASLSLAPVNIKAGADEERAETARLSSFIGAIGIDLKSTLPGKGMKILLSSGRDAS LMVTDGATLIKNIQVNDNPAKVLVDMRSVQDDVEGGDTTSVTLAELAREASLJAKK IHPQITIAIGREATKAAREALLSSVDHGSDEVKFWQDLMNIAIGTTLSSKLLTHHKDHTF KLAVEAVLRKLGSGNLAIEHVIKGLGSLADSYLDEGLLQKIGVNOQPKRIENAKLIA NTGMDTKIKIFGRVVRVDSTAKVAEIEHAEEKMEKVERLKHGINCFINRLYNY EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTDFHPELVKLGSCLEIEVIMGEDKLI HFGVALGEACTIVLRGATQILDEAERSLHDALCVLAQTVKDPRTVYGGGCSSEMLMAHA VTMLASRTPGKEAVAMESFAKALRMLPTIADNAGYDSADLVQALRAHSEGRITAGLDM KEGSGDVAVLGITESFQKRQVLLSAAEAEVILRVNDIILKAAAPRRVPHHPC
Cct21P		Rn			CCTbeta pseudogene 1	X	q31	+	2	94540595	94541059	Not identified at pseudogene.org	ECILKHGINCFVSRQLYNYPEEITFAGVIAIEHADFGVEFLALVTGKLMQFPGLAVG DVCTIVLHGATQILDEAERTLYDALCVLAQIVKDPRTVYGGGCLLEMLMAHVTVKASGT PKGEV

Cct3		Rn	NP_954522 XP_215611	NM_199091.1	CCTgamma (real gene) vert	2	q34	+	12	180383106	180433933	Not identified at pseudogene.org	MMGHRPVLVLSQNTKRESGRKVQSGNINAAKTIADIIRTCLEPKSMMKMLLDPMGIVMTNDGNAILREI QVHPAAKSMIEISRTQDEEVDGTTSVIILAGEMLSAEHLEQMQHPTVVISAYRMLDDMVSTLKKI STPVDVNRDMLNIIINSITTKVISRWSSALCNIALDAVKTQVFEENGRKEAIKDYARVEKIPGGIIE DSCVLRGMINKDVTIHRMRRYIKNPRVLLDSSLEYKGESQTDIETREEDFTRLQMEEEYIQLQCE DIQLKPDVITEKIGSLSLAQHYLMRANVTAIRVRKTDNRIARACGARIVSRPEELREDDVGTGAGLL EIKKIDGVEYFTFDCKDPKACTILLRGAESKELSEVERNLODAMQVCRNVLDDPQLVPGGASAMVAH ALTEKSKAMTGVQWYRAVAQALEVPIRPTLIQNCGASTIRLLTSLRAKHTQENCTEYVGNVGETGLVDM KELGIWEPLAKLQTYKTAVETAVALLRIDDIVSGHKKGDDQNRQTGPADGAGQE
Cct31P		Rn			CCTgamma pseudogene 1 vert	19	p11	+	3	21483523	21485110	Not identified at pseudogene.org	MYGHCVPVLLSQNTQVRVGRKVQSGNINTAKTIADIWITCLEPKSMMKMLLDPARGIVMT NDEVDGTTSVIILAGEMLSAEHLEQMQHPTVVISAYRMLDDMINTLKKISIPVDVN NRDMLNIIINSITTKVISRWSSALCNIALDAVKTQVFEENGRKEAIKDYARVEKIPRG IFEDSCVLRVMINKDVTIHRMRRYIKNPRVLLDSSLEYKGESQTDIETREEDFTRLQMEEEYIQLQCE GLLEIKKIGEEYFTFDCKDPKACTILLRGAESKELSEVERNLODAMQVCRNVLDDPQLVPGGASAMVAH ALTEKSKAMTGVQWYRAVAQALEVPIRPTLIQNCGASTIRLLTSLR AQHTQENCTEYVGNVGETGLVDMKELGIWEPLAKLQTYKTAVETAVALLRIDDIVSGHKKGDDQNRQT SAADAGQE
Cct32P		Rn			CCTgamma pseudogene 2 vert	13	q13	-	4	51648197	51649727	Not identified at pseudogene.org	NTKRESGRKVQSGNVAAKRSANIWIITCLEPKSMMKMLLDPMTNDEMLSKHFLQQQM HPTVVISAYRMLDGMISTLKQISTPVDGKNHVDVNIINSITTKSSVTGGFLNPNANE RRLHLQCKDIIQLKDDVITENGISDLQVHYLMWANVTAIRVRKTDNRIARACGARIV RSQRDNIISRTPPGCHASVRNVLDPQRVPSGHVEQWSYRAVAQALEVPIRPTLIQNYG ASTIRLLISLRAKHTQENCTEYVGNVGETGLVDMKELGIWEPLAKLQTYKTAVETAVALLRIDDIVSGH KKGDDQNRQTSAADAGQE
Cct33P		Rn			CCTgamma pseudogene 3 vert	X	q31	+	3	93409548	93410990	Not identified at pseudogene.org	IQQVHPAAKSIIEISGTQDEVARDDGTTSVIILVGEMLSAEHLEQMQHPTVVISAYRMLDDMINTLKKI SIPVDVNRDMLNIIINSITTKVISRWSSALCNIALDAVKTQVFEENGRKEAIKDYARVEKIPGGIIE DSCVLRGMINKDVTIHRMRRYIKNPRVLLDSSLEYKGESQTDIETREEDFTRLQMEEEYIQLQCE DIQLKPDVITEKIGSLSLAQHYLMRANVTAIRVRKTDNRIARACGARIVSRPEELREDDVGTGAGLL EIKKIDGVEYFTFDCKDPKACTILLRGAESKELSEVERNLODAMQVCRNVLDDPQLVPGGASAMVAH ALTEKSKAMTGVQWYRAVAQALEVPIRPTLIQNCGASTIRLLTSLR AQHTQENCTEYVGNVGETGLVDMKELGIWEPLAKLQTYKTAVETAVALLRIDDIVSGHKKGDDQNRQT SAADAGQE
Cct34P		Rn			CCTgamma pseudogene 4 vert	4	q42	-	2	149237097	149237635	Not identified at pseudogene.org	ALSDLAQHLLVWVANVTATPRVWKTVNDAAARACGARIVSAETQRLAPLFLFLEEPARKYFWK KSPAPQDAMQVCHSILLDPQLVPGGASAMVAHLEKPKAMTG
Cct4		Rn	NP_877966	NM_182814.2	CCTdelta (real gene) vert	14	q22	+	13	103675244	103687376	Not identified at pseudogene.org	MPENVASRSGPPAAGPGRNGKAYDRDPAQIRFNSIAAKAVADAIRTSGLPKGMDKMQDGGKDVIT TNDGATILKQMQVLPAAARMLVLSKAQDIEAGDGTTSVVIAGSLLDSCCTLLQKGIHPTIIESEFQKA LEKGLLELTDMSRPVQLSDRETLNLSATLSSKVSQVSSYSLSPMSVNAVMMKVIDPATATSDVLRDIKI VKLGGTIDDCELVGELVLTQKAVANSGITREKAKIGLQFCLSAKPTDMDNQIVVSDYAGQMDRVLREER AYILNWKQJKTKGCVNLQKSLRDLSDALHFLNKKMIMVVKDIJEDIEFICKTGTGKPAHIHQ FTPDMLGSAELAEVSLNGSGLFKITGTCTSPKPTITIVRGSNKLVEEAERSHDLCVIRCLVKKRA LIAGGGAPEIELALRTEYSRSLSGMESYCVRAFADAMEVPISTLAENAGLNPISTVTELNRNHAQGEKT TGIVNRKGGISNILEMWWQLLVSVSALTATETVRSILKIDVVNTR
Cct5		Rn	NP_001004078 XP_215516	NM_001004078.1	CCTepsilon (real gene) vert	2	q22	-	11	83681899	83692935		MASVGLTAFDEYGRPFLIIOQDRKSRMLGMEALKSHIMAAKAVANTMRTSLGPNGLDKMMVMDKGGDVT TNDGATILSMMDDVHQIAKLMVELSKSQDDEIGDGTGTVVYLAGALLEEAQELDRGHPRIADQYEQA ARIAQHLDKISDNLVDNINPELIQTAKTLGSKVNSCHRQMAEIVANLTVADMEIRDVDFELIK VEGVGGRLLEDTLKIGVIVDKDFSHPMQPKVEVNAKIALITCFPEPPKTKHKLDPVTSVEDYKALQY EKEKFEEMIAQIKETGANLAIQWQGFDEANHLLQNGLPVAVVWVGGPELIIAATGGRRVPRSEVYS EKLGFAGVREISFGTKDKMLVLEQCKNSRATFIRGNGNMIIEAKRSLHDALCVIRNLRDRNRLT GGGAAEISCALAVSQEADCKPTLEQYAMRAFADALEVPMALSENSGMNPIQMTTEVRAKQVKNENPALG IDCLHGSNDMQYQHVIETLIGKKQISLATQMVIRMLKIDDIRKPGSESE
Cct51P		Rn			CCTepsilon pseudogene 1	X	q32	-	2	111419580	111419580	Not identified at pseudogene.org	KDQDCKSGLLEFEALKSHIMAAKAVAKTQMSLGNPTLNMIMVDKGGDVTVNNEDANILS MIDVDHEIAKLRVELSKSQDDEENRYGTRMDVLDKLDKISNNVLDINNESLGSKVNNS CHQQMTEISVNSIITVADTELRDVDFELIKWDSKILGWLENTRLIKHVIDDKDFSHPMQMS GKKMVDNSISILMCHFEPAKQKRHKL
Cct52P		Rn			CCTepsilon pseudogene 2	8	q13	-	1	17626224	17626583	Not identified at pseudogene.org	RSLIHYNRVVYGGAAEISCALGVSEVQDCKPTLEQYAMRTFADALEVIMHALSENGDMNPFQMTTEVLRARQVEENPA
Cct6A1P		Rn			CCTzeta pseudogene 1	8	q13	-	5	31685049	31688384	Not identified at pseudogene.org	MAAVKTLNPKAEVACVQAALAVNICLARGLQDVLRLNLPKGTMKMLVSGLHPRITIEGF EAAKEKALQLEQVSKEMDRTELIDVARTSLRTKVHAEADLVTEAVVDSILAIRKRD EPIDLFMVEIMEMKHSETDLSIRGLVDHGARHPDMKKRVENAYILTGNVSEVEKTE VNSGFFFFNKAEEERKLVKAERKFIEDRVKKSVCSEWKEGIVALHRAKRRNMRERTPACG GIALNSFDDLNPDCLGHAGLFYEYTLVHDGRRASSSSSVREMGDSGSSTEKFTFIEKYN NPRSVTLLVKGPNKHTLQIKDVIDRGLRAVNAIDDGCVPVAGAAEFADTLIIIPKV LAQNSGFDLQETLVKAEHSESGQLVGDVLTGEPVAAEMGVWVNDYCVKQLLHSCVTIT TNILL
Cct6A2P		Rn			CCTzeta pseudogene 2	10	q32.1	+	2	88702370	88703903		AVNISAAGGLQDVLRLNLPKGTMKMLVSGAGDTKLDKGNVLLNEMPIQHPIASLIAKV ATAQDDISGDGTTSSVLIIRYLKQVDLYISEGLHPRITIEGFKAAEKALQLEQVKS KEMDRKTLINARTSLWTKVHAEADLVTEAVVASIAGIKDERIDLFMVQIMEMKHKS ETDLSIRLGLKVCSDKAFVNIQKIDPPLSDALAKEGIVALCRARHRMERMTLAC SGIALNSFDDLNPDCLGHAGLFYEYTLGEEKFTFIEKCNVPSVTLVKGPNKHTLQIK DAIRDGLRAVNAIDDGCVPVAGAAEFADTLIIIPKVLAQNSGFDLQETLVKAEHSESGQLV VQNSGFDLQETLVKQAEHSEFGQLVRDLNTEGPMVATDMGVWVNDYCVKQLLHSCVTIT VVTKFL
Cct6A3P		Rn			CCTzeta pseudogene 3	5	q11	+	3	240279	241905		MAVVKTLNPKAEVARVQAALVNVISAAPGLQDVLRLNLPKGTMKMLVSGAGDILTKDG NVLLYEMFFYLQIQHTASLIAKAVATQDDIIDDDTFNVLIGELLKQADLYISEGL HPRITIEFETAKEKARQFLKQVKNKEMDRTELIDVARTSLRTKVHAEADLVTEAVV SILAIRKDEPIDLFVEIMEMKHSETDLSIRGLVDHGARHPDMKKRVENAYILTGNVSEVEKTE VNSGFFFFNKAEEERKLVKAERKFIEDRVKKSVCSEWKEGIVALHRAKRRNMRERTPACG GIALNSFDDLNPDCLGHAGLFYEYTLVHDGRRASSSSSVREMGDSGSSTEKFTFIEKYN NPRSVTLLVKGPNKHTLQIKDVIDRGLRAVNAIDDGCVPVAGAAEFADTLIIIPKV LAQNSGFDLQETLVKAEHSESGQLVGDVLTGEPVAAEMGVWVNDYCVKQLLHSCVTIT VVTKFL
Cct6A4P		Rn			CCTzeta pseudogene 4	5	q24	-	3	76957850	76959406		MKMLVSGSDIELTKDGNVLLHEMQIQHPTASLIAKAVATAQDDIIDDDTFNVLIGELLKQADLYISEGL NKCLYRGGYGLHFGHWEKEEPTLFMVEIMEMKHSETDLSIRGLVDHGARHPDMKKR VENAYILTGNVSEVEKTEVNSGFFFFNKAEEERKLVKAERKFIEDRVKKSVCSEWKEGIVALHRAKRRNMRERTPACG GIALNSFDDLNPDCLGHAGLFYEYTLGEEKFTFIEKCNVPSVTLVKGPNKHTLQIK DAIRDGLRAVNAIDDGCVPVAGAAEFADTLIIIPKVLAQNSGFDLQETLVKAEHSESGQLVGDVLTGEPVAAEMGVWVNDYCVKQLL PSCTLIATNILLVDMKIMRAGMSSLK

Cct6A5P		Rn			CCTzeta pseudogene 5	18	p11	-	4	35236443	35237988	MMAVKTLNPKAEVAGAQLVNVSSAAGLQDVLRTNSGLKGTVMFVSGAGDIKCTKDG NDDITGDGTTSNVLIIGELHQEDLYVSEGLHPRIISEGFEAAEKALQFLEQVQVSKEM DRETLDIKDILLKRWLPFLCKRRRHSQAQSQEKGKLTACGGIALNSFDDNLDC LGHAGLVYEYTLGKEMFTCEKCSNPSTVTLVKGPNKMLTQIKDIRDLGRAVKNAID DGCVPVWPGAGAEVALAEALIKYKPSVKGRAQLGVQACTDALLIIPKLAQNSGFDLQK TLKFKLNQNLVLS
Cct6A6P		Rn			CCTzeta pseudogene 6	1	q12	-	5	67148659	67170130	MAVVKTLNPKTEVAREQAALVNVSSAALVLDQDTMKKLVSGAEDIKLTKDGNVLIHEMQI QHPTASLIAKVATAQDDITGDGTTSNVLIIRELLKQIDLYVSEGLHPRIISEGFEAAEK ALQFLEQVQVSKEDRETLINMARVSLQFQMLNLLGLVDHGVWHPDMKKRVESAYILTC NVSLYEKTEGNSGSFTRIELEKELKVKCGSDKGFVVIQKGDPPFDLALVNEAMN LSVDLNPCLGHAGLVYEYTLGEEKFTVMKKRDNLQSVTLAKGPNKHTLQIKDAIRDG LRAVKMLLMAVLSWVQVQVSSFDLQEKRVKVAEHSSECQLVGVDLSTGEAMVATEM SDWDNYCVKQLLHSCVTMATNILLVDEIMRAG
Cct6A7P		Rn			CCTzeta pseudogene 7	1_random		-	5	1252980	1254555	MKKLVSGAEDIKLTKDGNVLIHEMQIHTASLIAKVATAQDDITGDGTTSNVLIIRELL KQIDLYVSEGLHPRIISEGFEAAEKALQFLEQVQVSKEDRETLINMARVSLQFQMLNLLGLVDHGVWHPDMKKRVESAYILTC NVSLYEKTEGNSGSFTRIELEKELKVKCGSDKGFVVIQKGDPPFDLALVNEAMN LSVDLNPCLGHAGLVYEYTLGEEKFTVMKKRDNLQSVTLAKGPNKHTLQIKDAIRDG LRAVKMLLMAVLSWVQVQVSSFDLQEKRVKVAEHSSECQLVGVDLSTGEAMVATEM SDWDNYCVKQLLHSCVTMATNILLVDEIMRAG
Cct6A8P		Rn			CCTzeta pseudogene 8	13	q22	-	5	79050104	79053455	VVRAQTALAVNISTAWGQDVLRTNLRPKGTVMKMPVSGAGDTLTKDDNTVDLYISKGLH PRITEGFEAAEKALQFLEQVQVSKEMDRGTLDVAKTSLRKHVAELADVLTVGAVTMEV KHKSETDTSLARGLALDLVAQVSLYEKTEEMPLERRHSSVQSQEKGKLTACGGIAL NSFDNLNPDGLGHSGLAYKYTLKRSSPVLRSVTIPVLSVYVCSRSRGPGRGSRIKYKPSVK DRAQLGVQACADALLIIPKLAQNSAFDLQETLKFKNQNPVSL
Cct6A9P		Rn			CCTzeta pseudogene 9	16	q12.5	-	4	88811021	88812383	MVAVKTLNPKADVARTQAALAVNISALGVQDVLRTNLSLQSGKGTMTLISGARDIKNSKDS NVLLHEMQIQHPIASLIAKVATAQDDITGDGTTSNVLIWELLQVQVYIYISKGLHPRIIIT GGLEIAEKNSKLVWTFWLLGKDPIDLSMVENMEMHKHSETDNLISRLFDHGMEL KKIIEKVKCGSDKGFVVIQKGTNPYDLALKEVTLLIKGPNHMLTQIKDAIRDG LRAIKNAIDDGCVVSGAGVGLAELALINYPKPSVKGRAQLGVQFADTLLIFPK
Cct6A10P		Rn			CCTzeta pseudogene 10	1	q12	-	3	67148933	67150124	LGPDKTMKLVSGAEDIKLTKDGNVLIHEMQIHTASLIAKVATAQDDITGDGTTSNVLI IIRELLKQIDLYVSEGLHPRIISEGFEAAEKALQFLEQVQVSKEDRETLINMARVSL QFQMLNLLGLVDHGVWHPDMKKRVESAYILTCNVSLYEKTEGNSGSFTRIELEKELK KVCSDKGFVVIQKGDPPFDLALVNEAMNLSVDLNPCLGHAGLVYEYTLGEEKFTV MKKRDNLQSVTLAKGPNKHTLQIKDAIRDGLRAVKMLLMAVLSWVQ
Cct6A11P		Rn			CCTzeta pseudogene 11	6	q23	+	5	83591559	83592798	SVGLHPRIIDFEAAKQALQVQVQVSTEMHREMLIDVARISLQSKVHAEFSDVLTE AVIMEMKHKSETDTSITGLVDHGAHPDMKKEIKELIKVELKVKCGNSDKFEVVIQ KGDPPFDLTVKEGLIYEYTLCEEKFNFEKCNCSRLSTLVNPNKHTLTKIKVAIRD GLRAVKNAVDGCVVQVQVGVLDNTGERMVAEAMGMWDNYCVKQLLHPCVTIATNILL VDEIMRAG
Cct6A12P		Rn			CCTzeta pseudogene 12	9	q22	-	4	50508448	50509665	RIITEGFEAAKERALQFLEQVQVSKEMNRKTLIDVAKTSLQSKVHVELADVLTEAVVNSI LAIRKREPTVYFVVEIMEMNHKSETDTSLIKGLNLDHAGHPDMKKRVDAINYLNCNSE EKEKLVKAERTFIDDTVKNIIDLNKLCTEPKGETWKADTSCGGIALNFANLTPDCLG HGGLVYIEMGPTKSMLEIKDSIRDGLRDKNAIDGHRCNRSRGTGRSSDQIQTCQEGQ GLAWGPGICRHLAYHSAEEMATEMGLWVDNYCVKQLLHSCIIITNFFLVEEIMRAG
Cct6A13P		Rn			CCTzeta pseudogene 13	14	q11	-	1	66456610	66457113	EKCNNPVSHTLVKPKGNKMLTQIKDARLDGLRAVNNVIDNGSVVPGTDALLIIPKVLQ NSGFDLQETLVKQAEHCKSNQVLDVNLSELMVVTMS
Cct6A14P		Rn			CCTzeta pseudogene 14	1	q12	-	1	67168555	67168845	VLVQSGFDLQEKRVKVAEHSSECQLVGVDLNTGEAIVATEMSEWDNYCVKQLLHSC AMATNILLVDEIMRAG
Cct6A15P		Rn			CCTzeta pseudogene 15	5	q11	+	2	8728585	8728815	MVAEMGVWDNYCVKQLLHSCVTIATNILLVDEIMRAGMSSLKG
Cct6A16P		Rn			CCTzeta pseudogene 16	18	q12.3	+	1	76283952	76284215	VLAQTSDDLWETLVMIQTEHSELRLVCDVNTGEPVVAEVSVS
Cct7		Rn	NP_001100073 XP_001073942 XP_216180	NM_001106603.1	CCTeta (real gene) vert	4	q34	+	11	119714400	119722770	MMPTPVILLKEGTDSSQGIPLVSNISACQVIAEAVRITLGPGRMDKLVDRGKATISNDGATILKLD VVHPAAKTLVDIAKSDQAEVGDGTTSVTLAAEFKQVQVYEEGLHPQIIIRAFRTATQAVLNKIKEIA VTVKQDKVEQRKMLEKCAMTALSSKLSQKVFVAKMVDVAVMMLDELLQKMGIKKVGGALESRL VAGVAFKFTFSYAGFEMQPKYKPKIALLNVELEKAEKDAEIRVHTVEDYQAVDAEWNLIDYKLEK IHQSGAKVILSKLPIGDVATQYFADRDVFCAGRVPEELKRTMMACGGSIQTSVNLIPDVLGRQVFE TQIGGERYVFTGCPKAKTCTIILRGGAEQFMEETERSLHDAIMVRRRAIKNDSVAGGGAEMELSKYL RDYSRTIPGKQQLLIGAYAKALEIIPRQLCDNAGFDATNINLKRARHAQGGMWYGVDDINEDIADNFQA FVWEPAMVRINALTAASEAACLIVSDETIKPRSTVDAPAPAAGRGRGGRFH
Cct71P		Rn			CCTeta pseudogene 1	1	q43	+	1	216186823	216188454	MMPTPVILLKEGTDSSQGIPLVSNMSACEVIAEAVRITLGPGRMDKLVDRGKATISNDGATILKLD VVHPAAKTLVDIAKSDQAEVGDGTTSVTLAAEFKQVQVYEEGLHPQIIIRAFRTATQAVLNKIKEIA VTVKQDKVEQRKMLEKCAMTALSSKLSQKVFVAKMVDVAVMMLDELLQKMGIKKVGGALESRL VAGVAFKFTFSYAGFEMQPKYKPKIALLNVELEKAEKDAEIRVHTVEDYQAVDAEWNLIDYKLEK IHQSGAKVILSKLPIGDVATQYFADRDVFCAGRVPEELKRTMMACGGSIQTSVNLIPDVLGRQVFE TQIGGERYVFTGCPKAKTCTIILRGGAEQFMEETERSLHDAIMVRRRAIKNDSVAGGGAEMELSKYL RDYSRTIPGKQQLLIGAYAKALEIIPRQLCDNAGFDATNINLKRARHAQGGMWYGVDDINEDIADNFQA FVWEPAMVRINALTAASEAACLIVSDETIKPRSTVDAPAPAAGRGRGGRFH
Cct72P		Rn			CCTeta pseudogene 2	5	q36	+	3	145306136	145307710	MPTPVILLKEGTDSSQGIPLVSNMAPPSELISGRKVFAKMAAYVMMPEVLQITG RKSLLVHPAAKTLVLLPNKTLRLVMAPPSELISGRKVFAKMAAYVMMPEVLQITG AGAAFEKFTSYAGFEMQPKYKPKIALLNVELEKAEKDAEIRVHTGEDFQAMMDTKW SIRYDKLEKTHQSGAIVSKLPIGDVATQYFADRDVFCAGRVPEELKRTMMACGGSIQTSVNLIPDVLGRQVFE TQIGGERYVFTGCPKAKTCTIILRGGAEQFMEETERSLHDAIMVRRRAIKNDSVAGGGAEMELSKYL RDYSRTIPGKQQLLIGAYAKALEIIPRQLCDNAGFDATNINLKRARHAQGGMWYGVDDINEDIADNFQA FVWEPAMVRINALTAASEAACLIVSDETIKPRSTVDAPAPAAGRGRGGRFH
Cct73P		Rn			CCTeta pseudogene 3	9	q13	+	3	19556657	19557897	MTVKKQDKVEQRKMLEKSAVTPSSSELISQKVCFAKVVSDAVMMLDETLSELGLKGP RSIRTLNVELLKAQKDNVETVHTADEYKEIVDDQNILDGKLVGSSSSCRLEEDLK RLMNVKALIPDLGHSQVSEETQIGGERCNFFILRPRHVAASSVVALSSSLHGAIMFVR SVIKYDS
Cct81P		Rn			CCTeta pseudogene 1	11	q12	+	1	43940890	43941006	MNKVINHLKLFMT
Cct82P		Rn			CCTeta pseudogene 2	3	q12	+	1	32962674	32962763	GDKVTNMALHYANKNTML

Hspd1	LOC684747	Rn				9	q31	-	11	53884643	53894161	MLRLPTVLRQMRPVSRLAPHLTRAYAKDVKFGADARALMLQGVDDLADAVAVTMGPKGR TVIEQSWGSPKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDAVIAELKKQSKPVTPEEIAQVATISANGDK DIGNIISDAMKVKGRKGVITVKDGTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVQSIIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd1P		Rn			GROEL pseudogene 1	14	q22	+	1	107651987	107653696	ASTTHSPNETSVSGTSSSHYAKDKVFGADARALMLQGVDDLADAVAVTMGPKGRVTM IEQSWGSPKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDAVIAELKKQSKPVTPEEIAQVATISANGDK DIGNIISDAMKVKGRKGVITVKDGTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVQSIIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd2P		Rn			GROEL pseudogene 2	14	p11	+	1	42554408	42556112	MLRLPTVLRQMRPVSRLAPHLTQAYAKDVKFGADARALMLQGVDDLADAVAVTMGPKGR TVIEQSWGSPKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISQGAEPVPIRRGVMASVDAVIAELKKQSKPVTPEEIAQVATISANGDK DTGNIISDAVKKVGRKGVITKDDGKTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVQSIIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd3P		Rn			GROEL pseudogene 3	17	q12.1	+	2	58629782	58633066	PKVTKDGVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDAVIAELKKQSKPVTPEEIAQVATISANGDK DTGNIISDAVKKVGRKGVITKDDGKTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVQSIIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd4P		Rn			GROEL pseudogene 4	14	p11	-	2	41523338	41525050	ALITHSPDQTSVSGTSSSHSLGCRCKIWCQSJALMLQGVDDLADAVAVTMGPKGR TVIEQSWGSPKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISQGAEPVPIRRGVMASVDAVIAELKKQSKPVTPEEIAQVATISANGDK DTGNIISDAVKKVGRKGVITKDDGKTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVQSIIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd5P		Rn			GROEL pseudogene 5	1	q35	-	2	179041398	179043070	LLADAVAVTMGPKGRVTIEQSWGSPKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANN KRLGMHHHCYCSGRSIAKEGFEKISKGANPVEIRRGVMLTVDAVIAELKKQSKPVTPEE ISQVATISANGDKDIGNIISDAMKVKGRKGVIAVKDGTLNDELIEIEGKMFDRGYSIPY FINTSKGQKCEFQDAYVLLSEKISSVRSIPALEIANHRKPLVIAEDVDGEALSTLV NLRKVLQVAVKAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVE VITKDDAMLLKGGKDEAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGG TSDVDEVEKDRVTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRA LIPAMTIAKNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLD APGASVLLTAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd6P		Rn			GROEL pseudogene 6	20	q11	+	4	30691244	30692932	HSPSPDTSVSGTSSSLHGLCQRVFGADAPALMLQGVDDLADAVAVTMGPKGRVTTE QSWEFKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISQGAEPVPIRRGVMASVDAVIAELKKQSKPVTPEEIAQVATISANGDK DIGNIISDAMKVKGRKGVITKDDGKTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVRSIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG
Hspd7P		Rn			GROEL pseudogene 7	1	q22	-	2	103951550	103953587	LPTVLHQRMPVSRLAPHLTRAYAKDVKFGADARASMFQGVLLVHVAVAVTWPKGKTVI IDQSWGSPKDPANNNEEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDA VIAELKKQSKPVTPEEIAQVATISANGDKDIGNIISDAMKVKGRKGVITKDDGKTLNDEL IEIEGKMFDRGYSIPYFINTSKGQKCEFQPMFYVDEALSTLVNLRKVLQVAVRQV FGDKNKQLKDMAIATGGAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGLVGGG CALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIAKNAGVEGSLIVEKILQSSSEVGYD AMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLTAEAVVTEIPKEEKDPGMGAMGG MGGGG
Hspd8P		Rn			GROEL pseudogene 8	13	p13	+	1	3553285	3554991	PTVLHQRMPVSRLAPHLTRAYAKDVKFGADARALMLQGVDDLADAVAVTMGPKGRVT IEQSWGSPKDPANNNEEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDA VIAELKKQSKPVTPEEIAQVATISANGDKDIGNIISDAMKVKGRKGVITKDDGKTLNDEL IEIEGKMFDRGYSIPYFINTSKGQKCEFQPMFYVDEALSTLVNLRKVLQVAVRQV FGDKNKQLKDMAIATGGAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGLVGGG CALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIAKNAGVEGSLIVEKILQSSSEVGYD AMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLTAEAVVTEIPKEEKDPGMGAMGG MGGGG
Hspd9P		Rn			GROEL pseudogene 9	2	q43	+	1	234250749	234252288	PSPDTSVSRALAPHLTRAYAKDVKFGADARASVQLQSWGSLKVTGDVTVAKSIDLKD KYYKNIAGKLVQDVANNNEEAGDGTITATVLA RSIAKEGFEKISKGANPVEIRRGVMLAVDA VIAELKKQSKPVTPEEIAQVATISANGDKDIGNIISDAMKVKGRKGVITKDDGKTLNDEL IEIEGKMFDRGYSIPYFINTSKGQKCEFQPMFYVDEALSTLVNLRKVLQVAVRQV FGDKNKQLKDMAIATGGAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGLVGGG CALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIAKNAGVEGSLIVEKILQSSSEVGYD AMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLTAEAVVTEIPKEEKDPGMGAMGG MGGGG
Hspd10P		Rn			GROEL pseudogene 10	5	q24	-	4	76955304	76956924	NAVAVTMESKRTVLIQSLGSPKVTGDVTVAKSIDLKDYYKNIAGKLVQDVANNNEEAG DGTITATVLA RSIAKEGFEKISQGAEPVPIRRGVMASVDAVIAELKKQSKPVTPEEIAQVATISANGDK DIGNIISDAMKVKGRKGVITKDDGKTLNDELIEIEGKMFDRGYSIPYFINTSKGQKCEFQ DAYVLLSEKISSVRSIPALEIANHRKPLVIAEDVDGEALSTLVNLRKVLQVAV KAPFGDNRNQLKDMAIATGGAVFEGEGLNMLNLEDVQAHDLGKVGVEVITKDDAMLLK KGDKAHIEKRIQEITTEQLDITTEYEKELNERLAKLSDGVAVLKVGGTSDVEVNEKKDR VTDALNATRAAVEEGLVGGGCALLRCPALDLSKPANEDQKIGIEIKRALKIPAMTIA KNAGVEGSLIVEKILQSSSEVGYDAMLGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLT TAEAVVTEIPKEEKDPGMGAMGGMGGGG

Hspd11P		Rn			GROEL pseudogene 11	6	q12	+	5	19170317	19172008									MLELNTVLHQVRPVSWTLPFHLTLAYAKDTQFGTAKALLFQDIDLADVVVTGKPKGR TVIIQSWGSPKVTGDITIRKSIDLNDENYNNRANLVQNEGFQKINAGANPEIQRVKD GKILNDELEIIEGKMKFRDGYISSYFINTSKGGQKCFEQDYVLLSEKFFSSVSQVPSLEI ANGSPWKIQFKDTAISTGGAVGFEGELNLDVQAHDLGKVGVDVITKDGSLLEKILQ SSSEDGYDMLRDFVNMVEKGFDPKVRRTALLAAAVDSLLTIAEVKVTIPNEEKNS GMGAMGMVGGMG
Hspd12P		Rn			GROEL pseudogene 12	2	q42	+	1	220584917	220585779									MLRLPTVLLKMRPMSQALAPHLTVVYAKDFKGAALKVQDVANNNTKEAGDGTATTLVA WSIAEEGFEKISKGVNPVEIWRGMLDADAVIAELKQKSPVPTPEEIAQVATISANGDK DIGNIISDAMKVGGRKGAITVDKGDGTLNDELEIEIEMKFRDGYISPYFINISKCHCKCFEQ DAYVLLSEKNISSVQTVPALEIANHRKPLVIAEDVDGEALSTL
Hspd13P		Rn			GROEL pseudogene 13	9	q22	+	4	43887785	43896197									MVLHQMPPVSRALTLPLTRACIKDKIFGADARALMLQGVNLLAIAIVMIGSKGRTVII EQSWRSPIKTDWFSVAKSIDLKDXYKIMELNFRMLPTITKRLGMAPPLSLFWQVEIQ RDVMSAVDAVELTNSKQKPVTAPEEIAQVATISANVEKIDIGNIISDAMKSVISALEIA NAHQSSLVITTEVKAPFGDNRRKNQFKVMAITIGGVAVGPLNLEDVQDHDLGKVGEEI VTKDDAILLKGIGDKAHIEK
Hspd14P		Rn			GROEL pseudogene 14	5	q32	-	4	109039079	109040435									AVIAELIKQSKPVTAPEEIAQVASISTNGDKDIGNIISDAIEKVGKRVITVKDEQTLMD KLEIEAIVPALEVANTRRKLIMVEDVDGETLSTLVNLRLEVGLQVSVKALGFRDNR KNQLKGVSIATGGVEFGEGRLNLEEVQAHLGKVGVSVTYNRDGTMLKGGKDKAHIEK CIQGTIEQLDITTSYEEKGLNKLAKLSRVAVWKKDWWGTAVEESILTEGWVLLQCI PVLRSKLPANGDQKTAEAARTEIPEKENDPRIGAMDKAVGMG
Hspd15P		Rn			GROEL pseudogene 15	4	q21	+	5	37890620	37892172									SLALAPHLTQAYAKYKFTDPREALMQGVLLIIDAIVAVYNGIKGKNSGHWIDWESPRH RDGTTAAVLACSIAGKGFDFKSSKANPVQIQKVTAVDAVIAELNQSQPVTTPKLLS GKISSAQPMVHALEIANHPKALVITVEDVVRTLSTLVNLRKLVPSDGPVPLKLGTS DVEVGEKNGRITDLSFRAAVEEVLGGGCLKFCRFPQKLVMLMFFFEIVNMMVENR IIDPTKVVRIISILDAAGVASLIATKAVMTEIPKEETDPGT
Hspd16P		Rn			GROEL pseudogene 16	X	q32	+	1	110646161	110647153									YVLLSGKISSVQIIVPEIANHRKPLVIIAEDVDGEALRTLVNLNRKTLQVVTVA PGFAENRKNQFKDMAIATGGVVFGEELNLLKDVQDREGEAVTKDDAILLKGV TKLTLNKKLNERLAKLSDGIAVLKFGGTCDEIENKDRVTDLNFPTAAVQEGVLGR GCALLRCPALNSLNLMLKNSVSSLLVEKILQSSSEVAYKAMVDFVNMVEKIIDPT
Hspd17P		Rn			GROEL pseudogene 17	X	q31	+	4	84112821	84114244									KSILAQFVQDVANNNTKGTGDGTTTTVLAWSIANEGFENVSKGANPEIQSSMMLTVDA VIVLKTQSKSMTTPEEIALLATISANVCNAGESIGNISDVTKVGRKGC DKRDKGAL SDELEVSSEMFKDRGYSIYQIKRSKCDQDQAVLLSTKVKVSPLNRYKTCFEQTSWS SGCSSQSKVWQEEPDLTMAIATGGVVFGEELNLLKDVQDREGEAVTKDDAILLKGV LLKGDGVAVLVKGEISDVEVNKKDRVTDALSTRASVKEDIVLVAALHFSSSDVGY DAILRDFVSMKGINNRSNKCKNCFYCYWGDQSCDRNS
Hspd18P		Rn			GROEL pseudogene 18	9	q22	-	1	46394084	46394824									GGAVFGEELNLSLEDVYHDLGKVGVEVNVTKDDATLLKGGKDKDIEKCIQTEIQL DIPTEYKESWMSDLQNFQTEAVLKAGGQVTLKCVRRRQGYTCSQYRSCGRGICAL RCPVLDLSLKPANEDQKIGIEITKRAGIPAMMTAKNEVGEVLSVEKILQSSSEVGYEA MLGDFVNMMAEKGIIDRTKVVRTLLDAGVASLLTTTEAVVTEIPKEEKDPGAMGGMGG GMGGG
Hspd19P		Rn			GROEL pseudogene 19	20	q13	-	1	52019335	52019963									KGDKAHIEKCTQEITEQLDITTEGVAADALKATRAVEEGLVGGGCAQQCPALDSLK PANEDQKIGIEIKRALKIPVITVKNAVVEGSLVEKILQSSSEVGYEAMLDGFVSMVE KGIIIDPTKVVRIALLDAEAVASLLTIAEAVTEIPEEKDPGKSLGGMGWGTG
Hspd20P		Rn			GROEL pseudogene 20	15	p16	+	2	8089404	8090167									MGPKRRVTIIEQNRKSPKATKDGVTVAKSISVVKDKHKITRDLVQDVANNNTKNREMAP P
Hspd21P		Rn			GROEL pseudogene 21	X	q35	+	1	132806121	132806537									LPLFRHSLLPRRRLRSKAGKSEVRKTLKDKQKIGREIKRALKIPAMIIKVSAGLESL IVEKILQSSSEVGYDMLGDFVNMVEKIIINPKKILRAALPNAAGMASLLTTLEAVVT
Hspd22P		Rn			GROEL pseudogene 24	17	q12.1	-	1	58562739	58563142									GIVLGVGCALLQCPALNSLKTATEDQIGVEIKRALKIPAMIIKNAVVEGSLIVVKI LQSSSEVGYDMLGDFVNMMEKGIIDPTNVVRTALLDAGVASLLTTTEAVVTEIPEEK DPGAMGGMGGMEGG
Hspd23P		Rn			GROEL pseudogene 25	2	q31	-	4	151675083	151676174									KEKLNELAKLSDGAVLVKGGPSSVEVNEKARVRHRCSCSKTAAVEEGLVLEGECALL RCIPALDSLKLANEDQKIGIEIKRALKIPAMIIAKNA
Hspd24P		Rn			GROEL pseudogene 26	15_random		-	1	414366	414686									MKEIGRKSIVTVKDGKLNLEIDAYFLLEKISSVFPVPALEIGNAYWKSIVIAE DNDGKAIRSLVNLMLKFAQVVRVIRALGFDNRQNHMAIVSGAHLRKRMLKDHVLT DDDKLKEKGDKLLKNVFKSLSSWTSQLFLRHWHDAMLRDFVNMWKEIIDPTKVVRT TLDDAVEMALLVTTAET
Hspd25P		Rn			GROEL pseudogene 27	2	q22	-	2	75608618	75611557									QKICVESIKRALKIPAMTIKNAAGIEGSLVEKILQSSSEVGYDMLGDFVNMVEKIID LTKVVRTALLDAGVASLLTAEAVVTEIPEEKEPAMGAM
Hspd26P		Rn			GROEL pseudogene 28	6	q23	-	1	80028738	80029070									STEPALKIANAHWKPLVITADDIDKLSLSTLDLRLKLLKVLFLGPELFCRTLKIPAM KFSKNVGVESLTVDKILQSSSEVGYNAMLEDFVNMVEKGIIDPTKIIIRLLYWMLL
Hspd27P		Rn			GROEL pseudogene 29	7	q11	+	2	11777078	11777682									MTIAKNAGVRSSEVIVKILQNSSEAGYDMLGDFVNMVEKGIIDPTNLRALLGASGVT SLLTTAKAVVKEISKEKDPGMDAMGGMGGMG
Hspd28P		Rn			GROEL pseudogene 30	2	q16	+	1	62800517	62800732									IFPFNDTSKDRCELDQAYFLLEKISSVFPVPSLEIGNAYWKSIVIAEEDDDGKAI SLLVLMHLSYVYKERLNELANFQM
Hspd29P		Rn			GROEL pseudogene 31	5	q12	-	5	14696828	14698283									SSSEVGYEAMLDGFVNMVEKGIIDPQKVVRTASLADATGASLLTSGAVVTEIPEEKDP GV
Hspd30P		Rn			GROEL pseudogene 32	9	q31	-	1	53891997	53892110									MLPITQMKRLGSGSPIATLLSRRALRLAKATVPEEIVQVAMISANGDEIGNIICDAKK MVGRTMLTRSPDALSSVGLNRLIVGIVITAKSPFRFGNKRQTKMVAVTPGGAVLKERE WNSNLDVQAHDLGMSVKKRYEVLKASGGAALVKVGGSSDAEENEEKDCYGYSECFTS SCSEKKKRKNVNAVVEGLTVKILQSSSAEVGYDAARWKEESLIQR
Hspd31P		Rn			GROEL pseudogene 33	4	q22	+	1	53483173	53483310									ASLLTTAKAVVTEIPEEKDPGAMGMRM
Hspd32P		Rn			GROEL pseudogene 34	4	q13	-	1	30834360	30834470									MVEKGIIGSTMVVRTALLDTPGASLLTTTEAV

Tcp1		Rn	NP_036802	NM_012670.1		Cctalpha (real gene) vert	1	q12	-	12	42103629	42111145		MEGPLSVFGDRSTGEAIRSQNVMAAASIANVKSSLGPVGLDKMLVDDIGDVTITNDGATILKLEVEHP AAKVLCELADLQDKKEVGDGTTTSVIAAELKNADELVKQKIHPTSVISGYRLACKEAVRYINENLIINT DELGRDCLINAAKTSMSSKIIGINGDFFANMVVDVAVKVTDIRGQPRYPVNSVNLKAHGRSQIESML INGYALNCVVGSGMLKRIVNAKIACLDLSLQKTKMMLGVQVVITDPEKLDQIRQRESIDITKRIQKILA TGANVILTTGGIDDMCLKYFVEAGAMAVRRVLRDLKRIAKASGASILSTLANLEGEETFEATMLGQAE VVQERICDDELLIKNTKARTSASIIIRGANDFMCEMERSLHDALCVKRVLESKSVVPGGAVEAALS IYLENYATSMGSRQLAIAEFARSLVIPNTLAVNAAQDSTDLVAKLRAFHNQAQVNPENKLNKWLGLDL VHGKPRDNKQAGVFTEPTIVKVKSLKFATEAAITLRIIDDLIKLHPESKDDKHGGYENAVHSGALDD
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Table S7. Gene and pseudogene information, including start and end position, chromosomal location, strand, number of exons, GenBank accession number for functional genes, and Ensembl or Pseudogene.org ID for pseudogenes.