Recombinant Full Length Human HTT Protein

Cat. No. HTT-20HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human HTT Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
ProteinLength	1-3142 a.a.
Description	Huntingtin is a disease gene linked to Huntington's disease, a neurodegenerative disorder characterized by loss of striatal neurons. This is thought to be caused by an expanded, unstable trinucleotide repeat in the huntingtin gene, which translates as a polyglutamine repeat in the protein product. A fairly broad range of trinucleotide repeats (9-35) has been identified in normal controls, and repeat numbers in excess of 40 have been described as pathological. The huntingtin locus is large, spanning 180 kb and consisting of 67 exons. The huntingtin gene is widely expressed and is required for normal development. It is expressed as 2 alternatively polyadenylated forms displaying different relative abundance in various fetal and adult tissues. The larger transcript is approximately 13.7 kb and is expressed predominantly in adult and fetal brain whereas the smaller transcript of approximately 10.3 kb is more widely expressed. The genetic defect leading to Huntington's disease may not necessarily eliminate transcription, but may confer a new property on the mRNA or alter the function of the protein. One candidate is the huntingtin-associated protein-1, highly expressed in brain, which has increased affinity for huntingtin protein with expanded

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	polyglutamine repeats. This gene contains an upstream open reading frame in the 5' UTR that inhibits expression of the huntingtin gene product through translational repression.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	347.7 kDa
AA Sequence	MATLEKLMKAFESLKSFQQQQQQQQQQQQQQQQQQQQQQQPPPPPPPPPPPQL PQPPPQAQPLLPQPQPP PPPPPPPPGPAVAEEPLHRPKKELSATKKDRVNHCLTIC ENIVAQSVRNSPEFQKLLGIAMELFLLCSDD AESDVRMVADECLNKVIKALMDSNLP RLQLELYKEIKKNGAPRSLRAALWRFAELAHLVRPQKCRPYLVN LLPCLTRTSKRPE ESVQETLAAAVPKIMASFGNFANDNEIKVLLKAFIANLKSSSPTIRRTAAGSAVSIC QH SRRTQYFYSWLLNVLLGLLVPVEDEHSTLLILGVLLTLRYLVPLLQQQVKDTSLKGSF GVTRKEMEVS PSAEQLVQVYELTLHHTQHQDHNVVTGALELLQQLFRTPPPELLQT LTAVGGIGQLTAAKEESGGRSRSG SIVELIAGGGSSCSPVLSRKQKGKVLLGEEEAL EDDSESRSDVSSSALTASVKDEISGELAASSGVSTPG SAGHDIITEQPRSQHTLQAD SVDLASCDLTSSATDGDEEDILSHSSSQVSAVPSDPAMDLNDGTQASSPI SDSSQT TTEGPDSAVTPSDSSEIVLDGTDNQYLGLQIGQPQDEDEEATGILPDEASEAFRNSS MALQQAH LLKNMSHCRQPSDSSVDKFVLRDEATEPGDQENKPCRIKGDIGQSTDD DSAPLVHCVRLLSASFLLTGGK NVLVPDRDVRVSVKALALSCVGAAVALHPESFFSK LYKVPLDTTEYPEEQYVSDILNYIDHGDPQVRGAT AILCGTLICSILSRSRFHVGDWM GTIRTLTGNTFSLADCIPLLRKTLKDESSVTCKLACTAVRNCVMSLC SSSYSELGLQL IIDVLTLRNSSYWLVRTELLETLAEIDFRLVSFLEAKAENLHRGAHHYTGLLKLQERVL NNVVIHLLGDEDPRVRHVAAASLIRLVPKLFYKCDQGQADPVVAVARDQSSVYLKLL MHETQPPSHFSVS TITRIYRGYNLLPSITDVTMENNLSRVIAAVSHELITSTTRALTFG CCEALCLLSTAFPVCIWSLGWHCG VPPLSASDESRKSCTVGMATMILTLLSSAWFP LDLSAHQDALILAGNLLAASAPKSLRSSWASEEEANPA ATKQEEVWPALGDRALVP MVEQLFSHLLKVINICAHVLDDVAPGPAIKAALPSLTNPPSLSPIRRKGKEK EPGEQA SVPLSPKKGSEASAASRQSDTSGPVTTSKSSSLGSFYHLPSYLKLHDVLKATHANYK

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VTLDLQN STEKFGGFLRSALDVLSQILELATLQDIGKCVEEILGYLKSCFSREPMMAT
VCVQQLLKTLFGTNLASQF DGLSSNPSKSQGRAQRLGSSSVRPGLYHYCFMAPYT
HFTQALADASLRNMVQAEQENDTSGWFDVLQKVS TQLKTNLTSVTKNRADKNAIH
NHIRLFEPLVIKALKQYTTTTCVQLQKQVLDLLAQLVQLRVNYCLLDSD QVFIGFVLK
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GM CNREIVRRGALILFCDYVCQNLHDSEHLTWLIVNHIQDLISLSHEPPVQDFISAVH
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VLARMVDILACRRVEMLLAANLQSSM AQLPMEELNRIQEYLQSSGLAQRHQRLYSL
LDRFRLSTMQDSLSPSPPVSSHPLDGDGHVSLETVSPDKD WYVHLVKSQCWTRSD
SALLEGAELVNRIPAEDMNAFMMNSEFNLSLLAPCLSLGMSEISGGQKSALFEAA RE
VTLARVSGTVQQLPAVHHVFQPELPAEPAAYWSKLNDLFGDAALYQSLPTLARALA
QYLVVVSKLPSH LHLPPEKEKDIVKFVVATLEALSWHLIHEQIPLSLDLQAGLDCCCL
ALQLPGLWSVVSSTEFVTHACSLI YCVHFILEAVAVQPGEQLLSPERRTNTPKAISEE
EEEVDPNTQNPKYITAACEMVAEMVESLQSVLALGH KRNSGVPAFLTPLLRNIIISLA
RLPLVNSYTRVPPLVWKLGWSPKPGGDFGTAFPEIPVEFLQEKEVFKE FIYRINTLG
WTSRTQFEETWATLLGVLVTQPLVMEQEESPPEEDTERTQINVLAVQAITSLVLSAM
TVPV AGNPAVSCLEQQPRNKPLKALDTRFGRKLSIIRGIVEQEIQAMVSKRENIATHH
LYQAWDPVPSLSPATT GALISHEKLLLQINPERELGSMSYKLGQVSIHSVWLGNSIT
PLREEEWDEEEEEEADAPAPSSPPTSPVN SRKHRAGVDIHSCSQFLLELYSRWILP
SSSARRTPAILISEVVRSLLVVSDLFTERNQFELMYVTLTELR RVHPSEDEILAQYLV
PATCKAAAVLGMDKAVAEPVSRLLESTLRSSHLPSRVGALHGVLYVLECDLLDDT A
KQLIPVISDYLLSNLKGIAHCVNIHSQQHVLVMCATAFYLIENYPLDVGPEFSASIIQMC
GVMLSGSEE STPSIIYHCALRGLERLLLSEQLSRLDAESLVKLSVDRVNVHSPHRAM
AALGLMLTCMYTGKEKVSPGRT SDPNPAAPDSESVIVAMERVSVLFDRIRKGFPCE

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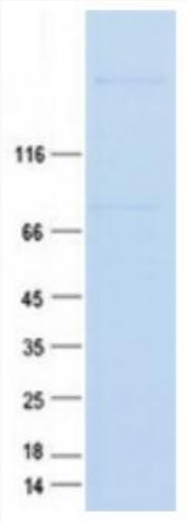
	ARVVARILPQFLDDFFPPQDIMNKVIGEFLSNQQPY PQFMATVVYKVFQTLHSTGQS SMVRDWVMLSLSNFTQRAPVAMATWSLSCFFVSASTSPWVAAILPHVIS RMGKLEQVDVNLFCLVATDFYRHQIEEELDRRAFQSVLEVVAAPGSPYHRLLTCLRN VHKVTTCTRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome
Protein Pathways	Huntington's disease
Full Length	Full L.

GENE INFORMATION

Gene Name	HTT huntingtin [Homo sapiens (human)]
Official Symbol	HTT
Synonyms	HD; IT15; LOMARS

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Gene ID	3064
mRNA Refseq	NM_002111.8
Protein Refseq	NP_002102.4
MIM	613004
UniProt ID	P42858



Coomassie blue staining of purified HTT protein.

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