

Product datasheet for **RC203185**

HEXA (NM_000520) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEXA (NM_000520) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HEXA
Synonyms:	TSD
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC203185 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGACAAGTTCAGGCTTTGGTTTTCGCTGCTGCTGGCGCAGCGTTTCGAGGACGGGCGACGGCCCTCT
 GGCCCTGGCCTCAGAACTTCAAACCTCCGACCAGCGCTACGTCCTTTACCCGAACAACTTTCAATTCCA
 GTACGATGTCAGCTCGGCCGCGCAGCCCGCTGCTCAGTCCTCGACGAGGCCCTTCAGCGCTATCGTGAC
 CTGCTTTTCGGTTCGGGTCTTGGCCCCGCTCTTACCTCACAGGGAAACGGCATACTGGAGAAGAATG
 TGTTGGTTGTCTGTAGTCACACCTGGATGTAACCAGCTTCTACTTTGGAGTCAGTGGAGAATTATAC
 CCTGACCATAAATGATGACCAGTGTACTCTCTGAGACTGTCTGGGAGCTCTCCGAGGTCTGGAG
 ACTTTTAGCCAGCTTGTGGAAATCTGCTGAGGGCACATTCTTATCAACAAGACTGAGATTGAGGACT
 TTCCCGCTTTCCCTCACCAGGGCTTGTGTTGGATACATCTCGCCATTACCTGCCACTCTAGCATCCT
 GGACACTCTGGATGTCATGGCGTACAATAAATTGAACGTGTTCCACTGGCATCTGGTAGATGATCCTTCC
 TTCCCATATGAGAGCTTCACTTTCCAGAGCTCATGAGAAAGGGTCTACAACCCTGTACCCACATCT
 ACACAGCACAGGATGTGAAGGAGGTCATTGAATACGCACGGCTCCGGGTATCCGTGTGCTTGCAGAGTT
 TGACACTCCTGGCCACACTTTGCTGCTGGGACCAGGTATCCCTGGATTACTGACTCCTTGCTACTCTGGG
 TCTGAGCCCTCTGGCACCTTTGGACCACTGAAATCCAGTCTCAATAATACCTATGAGTTCATGAGCACAT
 TCTTCTTAGAAGTCAGCTCTGTCTTCCAGATTTTATCTTTCATCTTGGAGGAGATGAGGTTGATTTAC
 CTGCTGGAAGTCCAACCCAGAGATCCAGGACTTTATGAGGAAGAAAGGCTTCGGTGGAGACTCAAGCAG
 CTGGAGTCTTCTACATCCAGACGCTGCTGGACATCGTCTTCTTATGGCAAGGGCTATGTTGGTGTGGC
 AGGAGGTGTTTGATAATAAAGTAAAGATTCAGCCAGACACAATCATAACAGGTGTGGCAGAGGATTTCC
 AGTGAACATATGAAGGAGCTGGAAGTGGTACCAAGGCCGGCTTCCGGGCCCTTCTCTGCCCCCTGG
 TACCTGAACCGTATATCCTATGGCCCTGACTGGAAGGATTTCTACGTAGTGAACCCCTGGCATTGGAAG
 GTACCCCTGAGCAGAAGGCTCTGGTGATTGGTGGAGAGGCTTGTATGTGGGGAGAATATGTGGACAACAC
 AAACCTGGTCCCCAGGCTCTGGCCAGAGCAGGGGCTGTTGCCGAAAGGCTGTGGAGCAACAAGTTGACA
 TCTGACCTGACATTTGCCTATGAACGTTTGTACACTTCCGCTGTGAGTTGCTGAGGCGAGGTGCCAGG
 CCCAACCCCTCAATGTAGGCTTCTGTGAGCAGGAGTTTGAACAGACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203185 protein sequence
 Red=Cloning site Green=Tags(s)

MTSSRLWFSLLLAAAFAGRATALWPWPQNFQTSQRYVLYPNNFQFYDVSSAAQPGCSVLDEAFQRYRD
 LLFGSGSWPRPYLTGKRHTLEKNVLVSVVTPGCNQLPTLESVENYTLTINDDQCLLLSETVWALRGLG
 TFSQLVWKSAEGTFFINKTEIEDFRPFPHRGLLLDTSRHYLPLSSILDLDVMAYNKLNVFHWHLVDDPS
 FPYESFTFPELMRKGSYNPVTHIYTAQDVKEVIEYARLRGIRVLAEFDTPGHLSWGPPIGLLTPCYSG
 SEPSGTFGPVNPVSLNNTYEFMSTFFLEVSVFPDFYLHLGGDEVDFTCWKSNIQDFMRKKGFGEDFKQ
 LESFYIQTLLDIVSSYGKGYVVWQEVFDNKVKIQPDTIIQVWREDIPVNYMKELELVTKAGFRALLSAPW
 YLNRIISYGPDWKDFYVVEPLAFEGTPEQKALVIGGEACMWGEYVDNTNLVPRLWPRAGAVAEERLWSNKL
 SDLTFAYERLSHFRCELLRRGVQAQPLNVGFCEQEFEQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

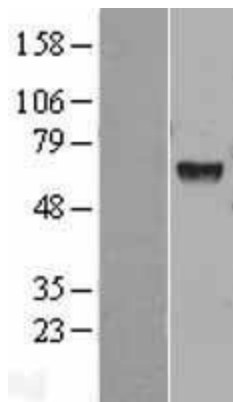
https://cdn.origene.com/chromatograms/mk6206_b09.zip

Restriction Sites:

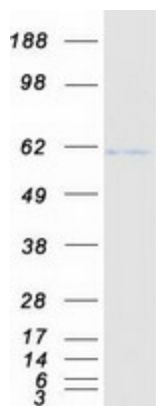
SgfI-MluI

ORF Size:	1587 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_000520.6
RefSeq Size:	2437 bp
RefSeq ORF:	1590 bp
Locus ID:	3073
UniProt ID:	P06865 , A0A0S2Z3W3
Domains:	Glyco_hydro_20
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Glycosaminoglycan degradation, Glycosphingolipid biosynthesis - ganglio series, Glycosphingolipid biosynthesis - globo series, Lysosome, Metabolic pathways, Other glycan degradation
MW:	60.7 kDa
Gene Summary:	This gene encodes a member of the glycosyl hydrolase 20 family of proteins. The encoded preproprotein is proteolytically processed to generate the alpha subunit of the lysosomal enzyme beta-hexosaminidase. This enzyme, together with the cofactor GM2 activator protein, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. Mutations in this gene lead to an accumulation of GM2 ganglioside in neurons, the underlying cause of neurodegenerative disorders termed the GM2 gangliosidoses, including Tay-Sachs disease (GM2-gangliosidosis type I). Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. [provided by RefSeq, Jan 2016]

Product images:



Western blot validation of overexpression lysate (Cat# [LY400176]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203185 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HEXA protein (Cat# [TP303185]). The protein was produced from HEK293T cells transfected with HEXA cDNA clone (Cat# RC203185) using MegaTran 2.0 (Cat# [TT210002]).