

Product datasheet for **SC119813**

HEXA (NM_000520) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEXA (NM_000520) Human Untagged Clone
Tag:	Tag Free
Symbol:	HEXA
Synonyms:	TSD
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >OriGene ORF within SC119813 sequence for NM_000520 edited (data generated by NextGen Sequencing)

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ATGACAAGCTCCAGGCTTTGGTTTTGCTGCTGCTGGCGGCAGCGTTTCGACAGGACGGGCG
ACGGCCCTCTGGCCCTGGCCTCAGAAGCTTCAAACCTCCGACCAGCGCTACGCTCTTTAC
CCGAACAACCTTCAATCCAGTACGATGTCAGCTCGGCCGCGCAGCCCGGCTGCTCAGTC
CTCGACGAGGCCCTCCAGCGCTATCGTGACCTGCTTTTCGGTTCGGGTCTTGGCCCCGT
CCTTACCTCACAGGGAACGGCATACTGAGAGAAGAATGTGTTGGTTGTCTCTGTAGTC
ACACCTGGATGTAACCAGCTTCCCTACTTTGGAGTCAGTGGAGAATTATACCCTGACCATA
AATGATGACCAGTGTCTACTCCTCTCTGAGACTGTCTGGGGAGCTCTCCGAGGTCTGGAG
ACTTTTAGCCAGCTTGTGGAAATCTGCTGAGGGCACATTCTTTATCAACAAGACTGAG
ATTGAGGACTTTCCCGCTTTCCTCACCAGGGGCTTGTGTTGGATACATCTCGCCATTAC
CTGCCACTCTCTAGCATCCTGGACTCTGGATGTCATGGCGTACAATAAATTGAACGTG
TTCCACTGGCATCTGGTAGATGATCCTTCCCTCCCATATGAGAGCTTCACTTTCCAGAG
CTCATGAGAAAGGGTCTACAACCCTGTACCCACATCTACACAGCACAGGATGTGAAG
GAGGTCATTGAATACGCACGGCTCCGGGTATCCGTGTGCTTGCAGAGTTTGACTCCT
GGCCACACTTTGCTCCTGGGGACCAGGTATCCCTGGATTACTGACTCCTTGTACTCTGGG
TCTGAGCCCTCTGGCACCTTTGGACCAGTGAATCCAGTCTCAATAATACCTATGAGTTC
ATGAGCACATTCTTTAGAAAGTCAGCTCTGTCTTCCAGATTTTATCTTCATCTTGGG
GGAGATGAGGTTGATTTACCTGCTGGAAGTCCAACCCAGAGATCCAGGACTTTATGAGG
AAGAAAGGCTTCGGTGAGGACTTCAAGCAGCTGGAGTCTTCTACATCCAGACGCTGCTG
GACATCGTCTCTTATGGCAAGGGCTATGTGGTGTGGCAGGAGGTGTTTGATAATAAA
GTAAAGATTGAGCAGACACAATCATACAGGTGGCGAGAGGATATCCAGTGAACATAT
ATGAAGGAGCTGGAAGTGTACCAAGGCCGGCTTCGGGGCCCTTCTCTGCCCCCTGG
TACCTGAACCGTATATCCTATGGCCCTGACTGGAAGGATTTCTAGTAGTGAACCCCTG
GCATTTGAAGGTACCCCTGAGCAGAAGGCTCTGGTATTGGTGGAGAGGCTTGTATGTGG
GGAGAATATGTGGACAACACAAACCTGGTCCCCAGGCTCTGGCCAGAGCAGGGGCTGTT
GCCGAAAGGCTGTGGAGCAACAAGTTGACATCTGACCTGACATTTGCCTATGAACGTTTG
TCACACTCCGCTGTGAGTTGCTGAGGCGAGGTGTCCAGGCCCAACCCCTCAATGTAGGC
TTCTGTGAGCAGGAGTTGAACAGACCTGA
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Clone variation with respect to NM_000520.4
1306 a=>g;1518 a=>g

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000520 unedited
NNNNNTTGTACAGAAATTGTATACGACTCACTATAGGCGGCCGGAATCGGCACGAGGGAC
CAGCGGGCCATGACAAGCTCCAGGCTTTGGTTTTGCTGCTGCTGGCGGCAGCGTTTCGCA
GGACGGGCGCAGGCCCTCTGGCCCTGGCCTCAGAAGCTTCAAACCTCCGACCAGCGCTAC
GTCCTTTACCCGAACAACCTTCAATCCAGTACGATGTCAGCTCGGCCGCGCAGCCCGGC
TGCTCAGTCTCTGACGAGGCCTTCCAGCGCTATCGTGACCTGCTTTTCGGTTCGGGTCT
TGGCCCCGTCTTACCTCACAGGGAACGGCATACTGAGAGAAGAATGTGTTGGTTGTC
TCTGTAGTCACACCTGGATGTAACCAGCTTCCCTACTTTGGAGTCAGTGGAGAATTATACC
CTGACCATAAATGATGACCAGTGTCTACTCCTCTCTGAGACTGTCTGGGGAGCTCTCCGA
GGTCTGGAGACTTTTAGCCAGCTTGTGGAAATCTGCTGAGGGCACATTCTTTATCAAC
AAGACTGAGATTGAGGACTTTCCCGCTTTCCTCACCAGGGGCTTGTGTTGGATACATC
TCGCCATTACCTGCCACTCTCTAGCATCCTGGACTCTGGATGTCATGGCGTACAAAAA
TTGGAACGTGTTCCACTGGCATCTGGGTAGATGATCCTTCCCTCCATATGAGAGCTTCA
CTNTTCCAGAGCTATGAGAAAAAGGGTCTACACCCTGTACCCACATCTACACAGACA
GGATGGGAAAGGGAGGTCATTTGATACGCACGCTNCCGGGAATCCCGGTGCTTGGCAA
AGTTTGACTCCTGGCCACTTTGCTCCTGGGGACCAGNATCCCTGGATACTGACTCCTG
CTACTCGGGTTCGGAA
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000520 unedited GCCTACGTGNACCGAGCCGCNATCNAGGATCGAGTAATATATTCTTTTTTTTTATATAG AAAATGCCACATTACTCTTTATTGAATGCGAGCGCCAGCACCCGGCCCTTCTCTCCAAG CACAGGGGCACGCAGGCAAGGGGCACGAAGGCAAGGGGCTCCGTCCCCTGGCCAGGATGC AGTGGAAGCCTGGCTCCACTACCATTACCTACAGTCAGCTCCCTCCTCGGTGCCTGGGG CTCAGGTCTGTTCAAACCTCCTGCTCACAGAAGCCTACATTGAGGGGTGGGCCTGGACAC CTCGCCTCAGCAACTCACAGCGGAAGTGTGACAAACGTTTCATAGGCAAATGTCAGGTCAG ATGTCAAACCTGTTGCTCCACAGCCTTTCGGCAACAGCCCTGCTCTGGGCCAGAGCCTGG GGACCAGTGTGTTGTCCACATATTCTCCCCACATACAAGCCTCTCCCAATACCA GAGCCTCTGCTCAGGGGTACCTTCAAATGCCAGGGGTCCACTACGTAGAAATCCTTCC AGTCAGGGCCATAGGATATACGGTTCAGGTACCAGGGGCAGAGAGAATGGCCCGGAGC CGGCCTTGGTGACCAGTTCAGCTCCTTCATATAGTTCCTGGAATATCCTCTCCCCC CCCTGTTGATTGTGCTGGCTGAATCTTACTTTTTTATCAAACACCTTCTGCCNCCC ATAGCCCTTGGCTCCGCATAGACTATGCCCTCTGCGTCCGGTGTGTAGGCCCTCCC CTTCTTGGAGTCTCCCGAAGCCCTTCTTCTTTTCAAGTCTCTGGTCTTGGGTTG GCGCTTCCCGCGGGGGTCCCACCCTTTTTTCCCCGCTCGCNCCTTTCTCTTGGGCC TCTCCTTCTCTCCGAATAAAGCTATATAAAAATAAAGAAAA
Restriction Sites:	NotI-NotI
ACCN:	NM_000520
Insert Size:	1880 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
RefSeq:	NM_000520.2 , NP_000511.1
RefSeq Size:	2255 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

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]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region compared to variant 1. The encoded isoform (2) is shorter than isoform 1.