

Product datasheet for **RG203185**

HEXA (NM_000520) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEXA (NM_000520) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HEXA
Synonyms:	TSD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG203185 representing NM_000520
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACAAGTTCAGGCTTTGGTTTTCGCTGCTGCTGGCGCAGCGTTTCGAGGACGGGCGACGGCCCTCT
 GGCCCTGGCCTCAGAACTTCCAAACCTCCGACCAGCGCTACGTCCTTTACCCGAACAACTTTCAATTCCA
 GTACGATGTCAGCTCGGCCGCGCAGCCCGCTGCTCAGTCTCGACGAGGCCCTCCAGCGTATCGTGAC
 CTGCTTTTCGGTTCGGGTCTTGGCCCCGCTCTTACCTCACAGGGAAACGGCATACTGGAGAAGAATG
 TGTTGGTTGTCTGTAGTCACACCTGGATGTAACCAGCTTCTACTTTGGAGTCAGTGGAGAATTATAC
 CCTGACCATAAATGATGACCAGTGTACTCTCTGAGACTGTCTGGGAGCTCTCCGAGGTCTGGAG
 ACTTTTAGCCAGCTTGTGGAAATCTGCTGAGGGCACATTCTTATCAACAAGACTGAGATTGAGGACT
 TTCCCGCTTTTCTCACCAGGGCTTGTGTTGGATACATCTGCCATTACCTGCCACTCTAGCATCCT
 GGACACTCTGGATGTCATGGCGTACAATAAATTGAACGTGTTCCACTGGCATCTGGTAGATGATCCTTCC
 TTCCCATATGAGAGCTTCACTTTCCAGAGCTCATGAGAAAGGGTCTACAACCTGTACCCACATCT
 ACACAGCACAGGATGTGAAGGAGGTCATTGAATACGCACGGCTCCGGGTATCCGTGTGCTTGACAGATT
 TGACACTCCTGGCCACACTTTGCTGCTGGGACCAGGTATCCCTGGATTACTGACTCCTTGCTACTCTGGG
 TCTGAGCCCTCTGGCACCTTTGGACCAGTGAATCCAGTCTCAATAATACCTATGAGTTCATGAGCACAT
 TCTTCTTAGAAGTCAGCTCTGCTTCCCAGATTTTATCTTCATCTTGGAGGAGATGAGGTTGATTTAC
 CTGCTGGAAGTCCAACCCAGAGATCCAGGACTTTATGAGGAAGAAAGGCTTCGGTGGGACTTCAAGCAG
 CTGGAGTCTTCTACATCCAGACGCTGCTGGACATCGTCTTCTTATGGCAAGGGCTATGTTGGTGTGSC
 AGGAGGTGTTTGATAATAAAGTAAAGATTCAGCCAGACACAATCATAACAGTGTGGCGAGAGGATTTCC
 AGTGAACATATGAAGGAGCTGGAAGTGTGACCAAGGCCGGCTTCCGGGCCCTTCTCTGCCCCCTGG
 TACCTGAACCGTATATCCTATGGCCCTGACTGGAAGGATTTCTACGTAGTGAACCCCTGGCATTGGAAG
 GTACCCCTGAGCAGAAGGCTCTGGTGATTGGTGGAGAGGCTTGTATGTGGGAGAATATGTGGACAACAC
 AAACCTGGTCCCCAGGCTCTGGCCAGAGCAGGGGCTGTTGCCGAAAGGCTGTGGAGCAACAAGTTGACA
 TCTGACCTGACATTTGCCTATGAACGTTTGTACACTTCCGCTGTGAGTTGCTGAGGCGAGGTGCCAGG
 CCCAACCCCTCAATGTAGGCTTCTGTGAGCAGGAGTTTGAACAGACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG203185 representing NM_000520
 Red=Cloning site Green=Tags(s)

MTSSRLWFSLLLAAAFAGRATALWPWPQNFQTSQRYVLYPNNFQFYDVSAAQPGCSVLDEAFQRYRD
 LLLFGSGSWPRPYLTGKRHTLEKNVLVSVVTPGCNQLPTLESVENYTLTINDDQCLLLSETVWALRGLE
 TFSQLVWKS AEGTFFINKTEIEDFPRFPHRGLLLDTSRHYLPLSSILDTLDMAYNKLNVFHWHLVDDPS
 FPYESFTFPELMRKGSYNPVTHIYTAQDVKEVIEYARLRGIRVLA EFDTPGHTLSWGPPIGLLTPCYSG
 SEPSGTFGPVNP SLNNTYEFMSTFFLEVSSVFPDFYLHLGGDEVDFTCWKS NPEIQDFMRKKGFGE DFKQ
 LESFYIQTL LLDIVSSYKGYVWVQEVFDNKVKIQPDTIIQVWREDIPVNYMKELELVTKAGFRALLSAPW
 YLNRI SYGPDWKDFYVVEPLAFEGTPEQKALVIGGEACMWGEYVDNTNLVPRLWPRAGAVAERLWSNKL T
 SDLTFAYERLSHFRCELLRRGVQAQPLNVGFCEQEFEQT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000520

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.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_000520.3](#), [NP_000511.1](#)

RefSeq Size: 2320 bp

RefSeq ORF: 1590 bp

Locus ID: 3073

UniProt ID: [P06865](#)

Cytogenetics: 15q23

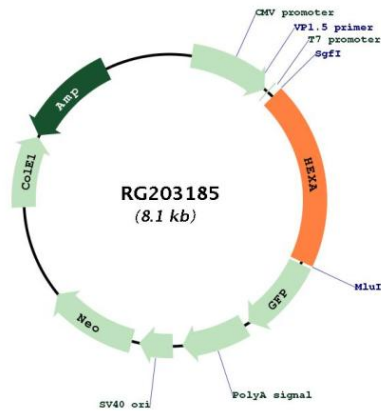
Domains: Glyco_hydro_20

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]

Product images:



Circular map for RG203185