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Product datasheet for RG200465

HEXB (NM_000521) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEXB (NM_000521) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HEXB
Synonyms:	ENC-1AS; HEL-248; HEL-S-111
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RG200465 representing NM_000521
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCTGTGCGGGCTGGGGCTGCCCCGGCCGCCCATGCTGCTGGCGCTGCTGTTGGCGACACTGCTGG
CGGCGATGTTGGCGCTGCTGACTCAGGTGGCGCTGGTGGTGCAGGTGGCGGAGGCGGCTCGGGCCCCGAG
CGTCTCGGCCAAGCCGGGGCCGGCGCTGTGGCCCCTGCCGCTCTCGGTGAAGATGACCCCGAACCTGCTG
CATCTCGCCCCGGAGAACTTCTACATCAGCCACAGCCCCAATTCCACGGCGGGCCCCTCCTGCACCCTGC
TGGAGGAAGCGTTTCGACGATATCATGGCTATATTTTTGGTTTCTACAAGTGGCATCATGAACCTGCTGA
ATTCCAGGCTAAAACCCAGGTTCAGCAACTTCTTGTCTCAATCACCCTTCAGTCAGAGTGTGATGCTTTC
CCCAACATATCTTCAGATGAGTCTTATACTTTACTTGTGAAAGAACCAGTGGCTGTCCTTAAGGCCAACA
GAGTTTGGGGAGCATTACGAGGTTTAGAGACCTTTAGCCAGTTAGTTTATCAAGATTCTTATGGAACTTT
CACCATCAATGAATCCACCATTATTGATTCTCCAAGGTTTTCTCACAGAGGAATTTTGATTGATACATCC
AGACATTATCTGCCAGTTAAGATTATTCTTAAAACTCTGGATGCCATGGCTTTTAATAAGTTTAATGTTC
TTCACTGGCACATAGTTGATGACCAGTCTTTCCCATATCAGAGCATCACTTTTCCTGAGTTAAGCAATAA
AGGAAGCTATTCTTTGTCTCATGTTTATACACCAAATGATGTCCGTATGGTGATTGAATATGCCAGATTA
CGAGGAATTCGAGTCCTGCCAGAATTTGATACCCCTGGGCATACACTATCTTGGGGAAAAGGTCAGAAAG
ACCTCCTGACTCCATGTTACAGTAGACAAAACAAGTTGGACTCTTTTGGACCTATAAACCCTACTCTGAA
TACAACATACAGCTTCCTTACTACATTTTTCAAAGAAATTAGTGAGGTGTTTCCAGATCAATTCATTCAT
TTGGGAGGAGATGAAGTGGAATTTAAATGTTGGGAATCAAATCCAAAAATTCAAGATTTCATGAGGCAAA
AAGGCTTTGGCACAGATTTTAAGAAACTAGAATCTTTCTACATTCAAAAGGTTTTGGATATTATTGCAAC
CATAAACAAGGGATCCATTGTCTGGCAGGAGGTTTTTGATGATAAAGCAAAGCTTGCGCCGGGCACAATA
GTTGAAGTATGGAAAGACAGCGCATATCCTGAGGAACTCAGTAGAGTCACAGCATCTGGCTTCCCTGTAA
TCCTTTCTGCTCCTTGGTACTTAGATTTGATTAGCTATGGACAAGATTGGAGGAAATACTATAAAGTGGA
ACCTCTTGATTTTGGCGGTACTCAGAAACAGAAACAACTTTTCATTGGTGGAGAAGCTTGTCTATGGGGA
GAATATGTGGATGCAACTAACCTCACTCCAAGATTATGGCCTCGGGCAAGTGCTGTTGGTGAGAGACTCT
GGAGTTCCAAAGATGTCAGAGATATGGATGACGCCTATGACAGACTGACAAGGCACCGCTGCAGGATGGT
CGAACGTGGAATAGCTGCACAACCTCTTTATGCTGGATATTGTAACCATGAGAACATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG200465 representing NM_000521
Red=Cloning site Green=Tags(s)

MELCGLGLPRPPMLLALLLATLLAAMLALLTQVALVVQVAEAARAPSVSAKPGPALWPLPLSVKMTPNLL
HLAPENFYISHSPNSTAGPSCTLLEEAFRRYHGYIFGFYKWHHEPAEFQAKTQVQQLLVSITLQSECDAF
PNISSDESYTLLVKEPVAVLKANRVWGALRGLETFSQLVYQDSYGTFTINESTIIDSPRFSHRGILIDTS
RHYLPVKIILKTLDAMAFNKFNVLHWHIVDDQSFPYQSITFPELSNKGSYSLSHVYTPNDVRMVIEYARL
RGIRVLPEFDTPGHTLSWGKGQKDLLTPCYSRQNKLDSFGPINPTLNTTYSFLTTFFKEISEVFPDQFIH
LGGDEVEFKCWESNPKIQDFMRQKGFGTDFKKLESFYIQKVLDIIATINKGSIVWQEVFDDKAKLAPGTI
VEVWKDSAYPEELSRVTASGFPVILSAPWYLDLISYGQDWRKYYKVEPLDFGGTQKQKQLFIGGEACLWG
EYVDATNLTPRLWPRASAVGERLWSSKDVRDMDDAYDRLTRHRCRMVERGIAAQPLYAGYCNHENM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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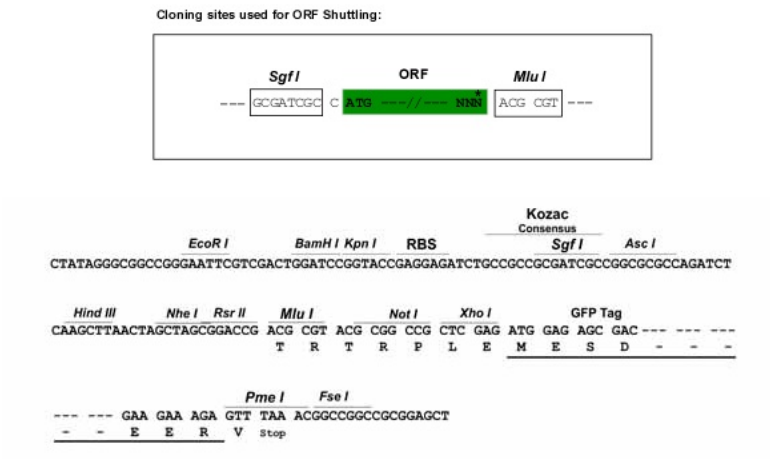
Cloning Scheme:



ACCN: NM_000521

ORF Size: 1668 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

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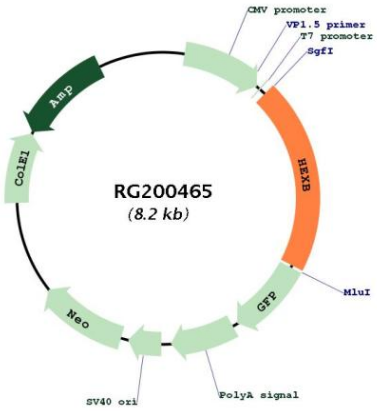
RefSeq:	NM_000521.3
RefSeq Size:	1857 bp
RefSeq ORF:	1671 bp
Locus ID:	3074
UniProt ID:	P07686
Cytogenetics:	5q13.3
Domains:	Glyco_hydro_20
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Glycosaminoglycan degradation, Glycosphingolipid biosynthesis - ganglio series, Glycosphingolipid biosynthesis - globo series, Lysosome, Metabolic pathways, Other glycan degradation
Gene Summary:	Hexosaminidase B is the beta subunit of the lysosomal enzyme beta-hexosaminidase that, together with the cofactor GM2 activator protein, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. Beta-hexosaminidase is composed of two subunits, alpha and beta, which are encoded by separate genes. Both beta-hexosaminidase alpha and beta subunits are members of family 20 of glycosyl hydrolases. Mutations in the alpha or beta subunit genes lead to an accumulation of GM2 ganglioside in neurons and neurodegenerative disorders termed the GM2 gangliosidoses. Beta subunit gene mutations lead to Sandhoff disease (GM2-gangliosidosis type II). Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2014]

Product images:



Circular map for RG200465

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