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Product datasheet for RC237493

HEXB (NM_001292004) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEXB (NM_001292004) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HEXB
Synonyms:	ENC-1AS; HEL-248; HEL-S-111
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237493 representing NM_001292004 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCTTTTAATAAGTTTAATGTTCTTCACTGGCACATAGTTGATGACCAGTCTTTCCCATATCAGAGCA TCACTTTTCCTGAGTTAAGCAATAAAGGAAGCTATTCTTTGTCTCATGTTTATACACCAAATGATGTCCG TATGGTGATTGAATATGCCAGATTACGAGGAATTCGAGTCCTGCCAGAATTTGATACCCCTGGGCATACA CTATCTTGGGGAAAAGGTCAGAAAGACCTCCTGACTCCATGTTACAGTAGACAAAACAAGTTGGACTCTT TTGGACCTATAAACCCTACTCTGAATACAACATACAGCTTCCTTACTACATTTTTCAAAGAAATTAGTGA GGTGTTTCCAGATCAATTCATTCATTTGGGAGGAGATGAAGTGGAATTTAAATGTTGGGAATCAAATCCA AAAATTCAAGATTTCATGAGGCAAAAAGGCTTTGGCACAGATTTTAAGAAACTAGAATCTTTCTACATTC AAAAGGTTTTGGATATTATTGCAACCATAAACAAGGGATCCATTGTCTGGCAGGAGGTTTTTGATGATAA AGCAAAGCTTGCGCCGGGCACAATAGTTGAAGTATGGAAAGACAGCGCATATCCTGAGGAACTCAGTAGA GTCACAGCATCTGGCTTCCCTGTAATCCTTTCTGCTCCTTGGTACTTAGATTTGATTAGCTATGGACAAG ATTGGAGGAAATACTATAAAGTGGAACCTCTTGATTTTGGCGGTACTCAGAAACAGAAACAACTTTTCAT TGGTGGAGAAGCTTGTCTATGGGGAGAATATGTGGATGCAACTAACCTCACTCCAAGATTATGGCCTCGG GCAAGTGCTGTTGGTGAGAGACTCTGGAGTTCCAAAGATGTCAGAGATATGGATGACGCCTATGACAGAC TGACAAGGCACCGCTGCAGGATGGTCGAACGTGGAATAGCTGCACAACCTCTTTATGCTGGATATTGTAA CCATGAGAACATG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

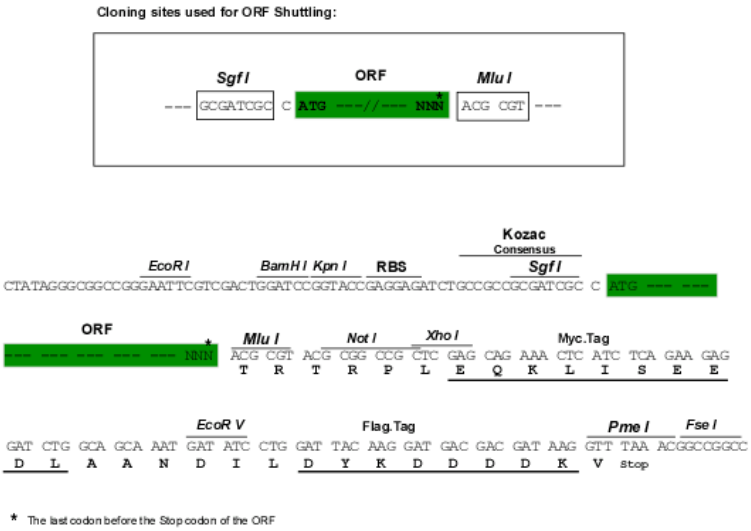
>RC237493 representing NM_001292004
Red=Cloning site Green=Tags(s)

MAFNKFNVLHWHIVDDQSFPYQSITFPELSNKGSYSLSHVYTPNDVRMVIEYARLRGIRVLPEFDTPGHT
LSWGKGQKDLLTPCYSRQNKLDSFGPINPTLNTTYSFLTTFFKEISEVFPDQFIHLGGDEVEFKCWESNP
KIQDFMRQKGFGTDFKKLESFYIQKVLDIIATINKGSIVWQEVFDDKAKLAPGTIVEVWKDSAYPEELSR
VTASGFPVILSAPWYLDLISYGQDWRKYYKVEPLDFGGTQKQKQLFIGGEACLWGEYVDATNLTPRLWPR
ASAVGERLWSSKDVRDMDDAYDRLTRHRCRMVERGIAAQPLYAGYCNHENM

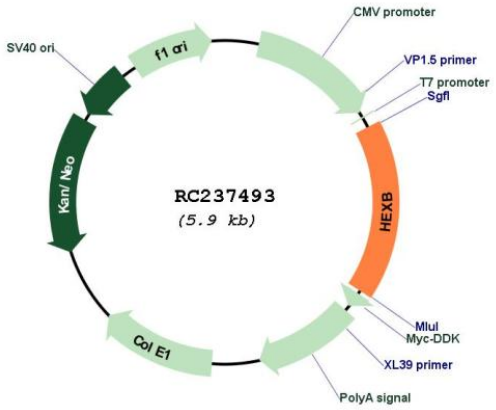
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001292004

ORF Size: 993 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_001292004.1, NP_001278933.1
RefSeq Size:	2039 bp
RefSeq ORF:	996 bp
Locus ID:	3074
UniProt ID:	P07686
Cytogenetics:	5q13.3
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
MW:	38.7 kDa
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]