

Product datasheet for **RG237493**

HEXB (NM_001292004) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEXB (NM_001292004) 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)
ORF Nucleotide Sequence:	>RG237493 representing NM_001292004. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCTTTAATAAGTTAATGTTCTTCACTGGCACATAGTTGATGACCAGTCTTTCCCATATCAGAGC
ATCACTTTTCCTGAGTTAAGCAATAAAGGAAGCTATTCTTTGTCTCATGTTTATACACCAAAATGATGTC
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TACATTCAAAAGTTTTGGATATTATTGAACCATAAACAAGGGATCCATTGTCTGGCAGGAGGTTTTT
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CACTTTTCATTGGTGGAGAAGCTTGCTATGGGGAGAATATGTGGATGCAACTAACCTCACTCCAAGA
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GCCTATGACAGACTGACAAGCACCGCTGCAGGATGGTGAACGTGGAATAGCTGCACAACCTCTTTAT
GCTGGATATTGTAACCATGAGAACATG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237493
 Blue=ORF Red=Cloning site Green=Tag(s)

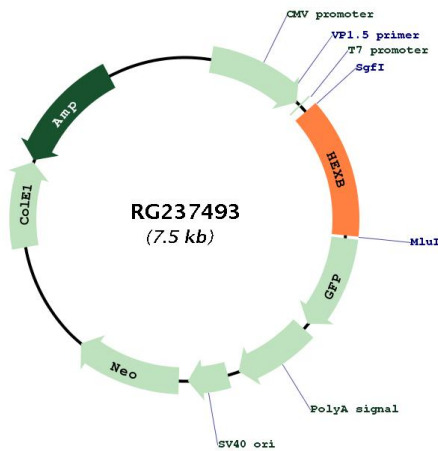
MAFNKFNVLHWHIVDDQSFYQSIITFPELSNKGSYLSHVYTPNDVRMVEYARLRGIRVLPFDTPGH
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 NPKIQDFMRQKGFDFKKLESFYIQKVLDIATINKGSIWQEVFDDKAKLAPGTIVEVWKDSAYPEE
 LSRVTASGFVPVILSAPWYLDLISYGQDWRKYKVEPLDFGGTQKQKQLFIGGEACLWGEYVDATNLTPR
 LWPRASAVGERLWSSKDVDRMDDAYDRLTRHRCRMVERGIAAQPLYAGYCNHENM
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEE
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

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).
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]