

Product datasheet for **RC238361**

beta glucuronidase (GUSB) (NM_001293104) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	beta glucuronidase (GUSB) (NM_001293104) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GUSB
Synonyms:	BG; MPS7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238361 representing NM_001293104
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCATCGTGGTATCCCAAGGGTTACTTTGTCCAGAACACATATTTGACTTTTTCAACTACGCTGGAC
 TGCAGCGGTCTGACTTCTGTACACGACACCCACCACCTACATCGATGACATCACCGTCACCACCAGCGT
 GGAGCAAGACAGTGGGCTGGTGAATTACCAGATCTCTGTCAAGGGCAGTAACCTGTTCAAGTTGGAAGTG
 CGTCTTTTGGATGCAGAAAAAAGTCTGTGGCAATGGGACTGGGACCCAGGGCCAACTAAGGTGCCAG
 GTGTCAGCCTCTGGTGGCCGTACCTGATGCACGAACGCCCTGCCTATCTGTATTCAATGGAGGTGCAGCT
 GACTGCACAGACGTCCTGGGCTGTGTCTGACTTCTACACACTCCCTGTGGGGATCCGCACTGTGGCT
 GTCACCAAGAGCCAGTTCCTCATCAATGGGAAACCTTTCTATTTCCACGGTGTCAACAAGCATGAGGATG
 CGGACATCCGAGGAAGGGCTTCGACTGGCCGTGCTGGTGAAGGACTTCAACCTGCTTCGCTGGCTTGG
 TGCCAACGCTTTCCGTACCAGCCACTACCCTATGCAGAGGAAGTGTGACGATGTGTGACCGCTATGGG
 ATTGTGGTCATCGATGAGTGTCCCGCGTGGGCCCTGGCGCTGCCGAGTTCCTTCAACAACGTTTCTCTGC
 ATCACCACATGCAGGTGATGGAAGAAGTGGTGCCTAGGGACAAGAACCACCCCGCGTGTGATGTGGTC
 TGTGGCCAACGAGCCTGCGTCCCACCTAGAATCTGCTGGCTACTACTTGAAGATGGTGTGCTCACACC
 AAATCCTTGGACCCCTCCCGCCTGTGACCTTTGTGAGCAACTCTAACTATGCAGCAGACAAGGGGGCTC
 CGTATGTGGATGTGATCTGTTTGAACAGCTACTACTCTTGGTATCAGCACTACGGGCACCTGGAGTTGAT
 TCAGCTGCAGCTGGCCACCCAGTTTGAAGTGGTATAAGAAGTATCAGAAGCCATTATTCAGAGCGAG
 TATGGAGCAGAACGATTGCAGGGTTTACCAGGATCCACCTCTGATGTTCACTGAAGAGTACCAGAAAA
 GTCTGTAGAGCAGTACCATCTGGTCTGGATCAAAAACGCAGAAAATACGTGGTTGGAGGCTCATTG
 GAATTTGCCGATTTTCTGACTGAACAGTACCAGAGAGTGTGGGAATAAAAAGGGGATCTTCACT
 CGGCAGAGACAACCAAAAAGTGCAGCGTTCCTTTTGCAGAGAGATACTGGAAGATTGCCAATGAAACCA
 GGTATCCCCTCAGTAGCCAAGTACAATGTTTGGAAAACAGCCTGTTTACT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238361 representing NM_001293104
 Red=Cloning site Green=Tags(s)

MPSWPKGYFVQNTYFDFFNAGLQRSVLLYTTPTTYIDDITVTTTSVEQDSGLVNYQISVKGSNLFKLEV
 RLLDAENKVVANGTGTQQLKVPVSLWVWYPLMHERPAYLSLEVQLTAQTSVLPVSDFYTLVPGIRTVA
 VTKSQFLINGKPFYFHGVNKHEDADIRGKGFDPVLLVKDFNLLRWLGANAFRTSHYPYAEVVMQCDRYG
 IVVIDECPGVGLALPQFFNNVSLHHMQVMEVVRDKNHPAVVMWSVANEPASHLESAGYYLKMVIAHT
 KSLDPSRPVTFVSNNSYAADKGPYVDVICLNSYYSWYHDYGHLELIQLQLATQFENWYKQKPIIQSE
 YGAETIAGFHQDPPLMFTEEYQKSLLEQYHLGLDQKRRKYVVGELIWNFADFMTQSPTRVLGNKKGIFT
 RQRQPKSAFLLRERYWKIANETRYPHSVAKSQCLENSLFT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

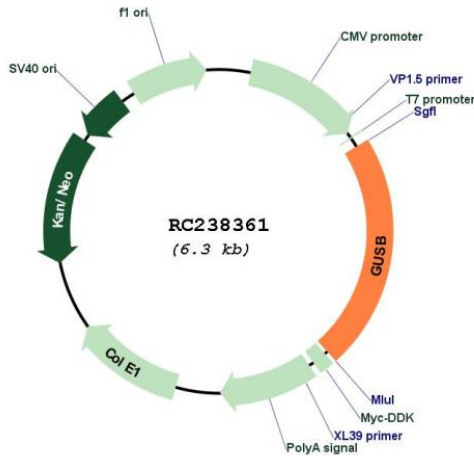
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001293104

ORF Size: 1383 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:	<ol style="list-style-type: none">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_001293104.2
RefSeq Size:	2128 bp
RefSeq ORF:	1386 bp
Locus ID:	2990
UniProt ID:	P08236
Cytogenetics:	7q11.21
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Drug metabolism - other enzymes, Glycosaminoglycan degradation, Lysosome, Metabolic pathways, Pentose and glucuronate interconversions, Porphyrin and chlorophyll metabolism, Starch and sucrose metabolism
MW:	53.6 kDa
Gene Summary:	This gene encodes a hydrolase that degrades glycosaminoglycans, including heparan sulfate, dermatan sulfate, and chondroitin-4,6-sulfate. The enzyme forms a homotetramer that is localized to the lysosome. Mutations in this gene result in mucopolysaccharidosis type VII. Alternative splicing results in multiple transcript variants. There are many pseudogenes of this locus in the human genome.[provided by RefSeq, May 2014]