

Product datasheet for **RC204325**

beta glucuronidase (GUSB) (NM_000181) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | beta glucuronidase (GUSB) (NM_000181) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | beta glucuronidase |
| Synonyms: | BG; MPS7 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide
Sequence:

>RC204325 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCCGGGGTTCGGCGTTCCCTGGGCGCGCTCGGGCCGTTGTTGTGGGGCTGCGCGCTGGGGCTGC
AGGGCGGGATGCTGTACCCCAAGGAGAGCCCGTCGCGGGAGTGCAAGGAGCTGGACGGCCCTTGGAGCTT
CCGCGCGGACTTCTCTGACAACCGACGCGGGGCTTCGAGGAGCAGTGGTACCGCGGCCCTGTGGGAG
TCAGGCCCCACCGTGGACATGCCAGTTCCTCCAGCTTCAATGACATCAGCCAGGACTGGCGTCTGCGGC
ATTTTGTGCGGCTGGGTGTGGTACGAACGGGAGGTGATCCTGCCGGAGCGATGGACCCAGGACCTGCGCAC
AAGAGTGGTGCTGAGGATTGGCAGTGCCATTCTATGCCATCGTGTGGGTGAATGGGGTGCACACGCTA
GAGCATGAGGGGGCTACCTCCCCTTCGAGGCCGACATCAGCAACCTGGTCCAGGTGGGGCCCTGCCCT
CCCGGCTCCGAATCACTATCGCCATCAACAACACTCACCCACCACCCTGCCACCAGGGACCATCCA
ATACCTGACTGACACCTCAAGTATCCCAAGGGTACTTTGTCCAGAACACATATTTTGACTTTTTCAAC
TAGCTGGACTGCAGCGTCTGTACTTCTGTACACGACACCCACCACCTACATCGATGACATCACCGTCA
CCACCAGCGTGGAGCAAGACAGTGGGCTGGTGAATTACCAGATCTCTGTCAAGGGCAGTAACCTGTTCAA
GTTGGAAGTGCCTTTTTGGATGCAGAAAAAAAGTCTGGCGAATGGGACTGGGACCCAGGGCCAACTT
AAGGTGCCAGGTGTCAGCCTCTGGTGGCCGTACCTGATGCACGAACGCCCTGCCTATCTGTATTCATTGG
AGGTGCAGCTGACTGCACAGACGTCCTGGGCGCTGTGTCTGACTTCTACACACTCCCTGTGGGGATCCG
CACTGTGGCTGTCAACAGAGCCAGTTCCTCATCAATGGGAAACCTTTCTATTTCCACGGTGTCAACAAG
CATGAGGATGCGGACATCCGAGGGAAGGGCTTCGACTGGCCGCTGCTGGTGAAGGACTTCAACCTGCTTC
GCTGGCTTGGTGCCAACGCTTTCCGTACCAGCCACTACCCCTATGCAGAGGAAGTATGCAGATGTGTGA
CCGCTATGGGATTGTGGTCATCGATGAGTGTCCCGCGTGGGCTGGCGCTGCCGAGTTCTTCAACAAC
GTTTCTCTGCATCACCACATGCAGGTGATGGAAGAAGTGGTGCCTAGGGACAAGAACCACCCCGGGTCCG
TGATGTGGTCTGTGGCAACGAGCCTGCGTCCCACCTAGAATCTGCTGGCTACTACTTGAAGATGGTGTG
CGCTCACACCAAATCCTTGGACCCTCCCGGCTGTGACCTTTGTGAGCAACTCTAACTATGCAGCAGAC
AAGGGGGCTCCGTATGTGGATGTGATCTGTTGAAACAGCTACTACTTGGTATCAGGACTACGGGCACC
TGGAGTTGATTCAGCTGCAGCTGGCCACCCAGTTTGAAGTGGTATAAGAAGTATCAGAAGCCATTAT
TCAGAGCGAGTATGGAGCAGAAACGATTGCAGGGTTTACCAGGATCCACCTCTGATGTTCACTGAAGAG
TACCAGAAAAGTCTGCTAGAGCAGTACCATCTGGGTCTGGATCAAAAACGCAGAAAATACGTGGTTGGAG
AGCTCATTGGAAATTTGCCGATTTTCATGACTGAACAGTACCGACGAGAGTGTGGGGAATAAAAAGGG
GATCTTCACTCGGCAGAGACAACCAAAAAGTGCAGCGTTCCTTTTGCAGAGAGATACTGGAAGATTGCC
AATGAAACCAGGTATCCCACTCAGTAGCCAAGTCACAATGTTTGGAAAACAGCCTGTTTACT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204325 protein sequence
Red=Cloning site Green=Tags(s)

MARGSAVAWAALGPLLWGCALGLQGGMLYPQESPSRECKELDGLWSFRADFSDNRRRGFEEQWYRRPLWE
 SGPTVDMVPVPSSFNDISQDWLRHFVGVWVYEREVILPERWTQDLRTRVLRIGSAHSYAIVWVNGVDTL
 EHEGGYLPFEADISNLVQVGPLPSRLRITIAINNTLTPTLPPGTIQYLTDTSKYPKGYFVQNTYFDFFN
 YAGLQRSVLLYTTPTTYIDDITVTTTSVEQDSGLVNYQISVKGSNLFKLEVRLLDAENKVVANGTGTQGQL
 KVPGVSLWVWVPLMHERPAYLYSLEVQLTAQTS LGPVSDFYTLPGVIRTVAVTKSQFLINGKPFYFHGVNK
 HEDADIRGKGFDPVLLVKDFNLLRWLGANAFRTSHYPYAEEMQMCDRYGIVVIDECPVGLALPQFFNN
 VSLHHMQVMEEVVRDKNHPAVVMWSVANEPASHLESAGYYLKMVIAHTKSLDPSRPVTFVSNNSYAAD
 KGAPYVDVICLNSYYSWYHDYGHLELIQLQLATQFENWYKYPKPIIQSEYGAETIAGFHQDPLMFTEE
 YQKSLLEQYHLGLDQKRRKYVVGELIWNFADFMTQSPTRVLRGNKKGIFTRQRQPKSAFLLRERYWKIA
 NETRYPHSVAKSQCLNSLFT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6199_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000181

ORF Size: 1953 bp

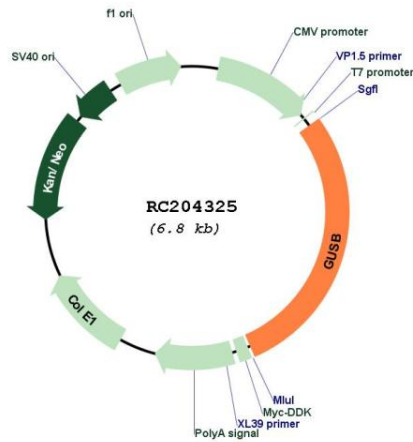
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

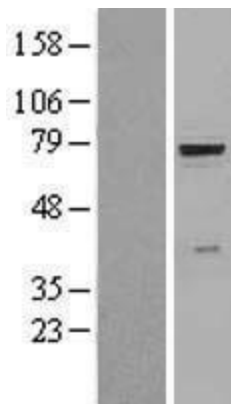
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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|-------------------------------|---|
| 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. |
| Note: | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| RefSeq: | NM_000181.4 |
| RefSeq Size: | 2321 bp |
| RefSeq ORF: | 1956 bp |
| Locus ID: | 2990 |
| UniProt ID: | P08236 |
| Cytogenetics: | 7q11.21 |
| Domains: | Glyco_hydro_2, Glyco_hydro_2_C, Glyco_hydro_2_N |
| 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: | 74.7 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] |

Product images:



Circular map for RC204325



Western blot validation of overexpression lysate (Cat# [LY400064]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204325 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GUSB protein (Cat# [TP304325]). The protein was produced from HEK293T cells transfected with GUSB cDNA clone (Cat# RC204325) using MegaTran 2.0 (Cat# [TT210002]).