

Product datasheet for **SC120081**

GBE1 (NM_000158) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GBE1 (NM_000158) Human Untagged Clone
Tag:	Tag Free
Symbol:	GBE1
Synonyms:	APBD; GBE; GSD4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC120081 sequence for NM_000158 edited (data generated by NextGen Sequencing)

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ATGGCGGCTCCGATGACTCCCGCGGCTCGGCCCGAGGACTACGAGGCGGCGCTCAATGCC
GCCCTGGCTGACGTGCCCGAACTGGCCAGACTCCTGGAGATCGACCCGTACTIONTGAAGCCC
TACGCCGTGGACTTCCAGCGCAGGTATAAGCAGTTTAGCCAAATTTGAAGAACATTGGA
GAAAATGAAGGTGGTATTGATAAGTTTTCCAGAGGCTATGAATCATTTGGCGTCCACAGA
TGTGCTGATGGTGGTTTTACTGCAAGAATGGGCCCGGAGCAGAAGGAGTTTTTCTT
ACTGGAGATTTTAAATGGTTGGAATCCATTTTCGTACCCATACAAAAAACTGGATTATGGA
AAATGGGAGCTGTATATCCACCAAAAGCAGAATAAATCTGTACTCGTGCCTCATGGATCC
AAATTAAGGTAGTTATTACTAGTAAAAGCGGAGAGATCTTGATCGTATTTACCCGTGG
GCAAAGTATGTGGTTCGTGAAGGTGATAATGTGAATTATGATTGGATACACTGGGATCCA
GAACACTCATATGAGTTAAGCATTCCAGACCAAAGAAGCCACGGAGTCTAAGAATTTAT
GAATCTCATGTGGGAATTTCTCCCATGAAGGAAAAGTAGCTTCTATAAACATTTTACA
TGCAATGTACTACCAAGAATCAAAGGCCTTGGATACAACCTGCATTGATGATGGCAATC
ATGGAGCATGCTTACTATGCCAGCTTTGGTTACCAAATACAAGCTTCTTTGCAGCTTCC
AGCCGTTATGGAACACCTGAAGAGCTACAAGAAGCTGGTAGACACAGCTCATTCCATGGGT
ATCATAGTCTCTTAGATGTGGTACACAGCCATGCTTCAAAAAATTCAGCAGATGGATTG
AATATGTTTATGGGACAGATTCTGTTATTTTCTTCTGGACCTAGAGGGACTCATGAT
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AACATAAGATGGTGGTGGGAAGAATATCGCTTTGATGGATTTCTGTTTGTGGTGTACG
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CACACGCTGTGCCGATTCTATAACAATAGCTGAGGATGTATCAGGAATGCCAGCTCTG
TGCTCTCCAATTTCCAGGGAGGGGTGGTTTTGACTATCGACTAGCCATGGCAATTTCCA
GATAAGTGGATTGAGCTACTTAAAGAGTTTAAAGATGAAGACTGGAACATGGGCGATATA
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GATCAGGCATTGGTTGGGATAAGTCGCTGGCATTGTTGTTGATGGATGCCGAAATGTAT
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AAAATGATTCGACTCATTACGCATGGGCTTGGTGGAGAAGGCTATCTCAATTTTATGGGT
AATGAATTTGGGCATCCTGAATGGTTAGACTTCCAAGAAAAGGAAATAATGAGAGTTAC
CATTATGCCAGGCGGCAGTTTCATTTAACTGACGACGACCTTCTTCGCTACAAGTTCCCTA
AATAATTTTGGCAGGGATATGAATAGATTGGAAGAAAGATATGGTTGGCTTGCAGCTCCA
CAGGCCTACGTGAGTGAAAAACATGAAGGCAATAAGATCATTGCTTTTGAAGAGCAGGT
CTTCTTTTCAATTTCCATCCAAGCAAGAGCTACACTGACTACCGAGTTGGAACA
GCATTGCCAGGGAAATTCAAAATTTGTGCTAGATTGATGATGATGATGATGATGATGATGAT
CAGAGACTGGACCACAGCACTGACTTTTTTTCTGAGGCTTTTGAACATAATGGGCGTCCC
TATTCTCTTTGGTGTACATTTCAAGCAGAGTGGCCCTCATCTTCAGAAATGTGGATCTG
CCGAATTGA

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Clone variation with respect to NM_000158.3

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_000158 unedited GGATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCACGCCTAGGCGCCCTCC GGCTCCGCCCTAGCCGCCGCTCCAGCTAGAGCTCCAGCGCCGCTCAGGCCCACTCG ACCCTCTCGGGCTCGGCTACTTGGACTGCGGCGGAATATGGCGGCTCCGATGACTCCCG CGGCTCGGCCCGAGGACTACGAGCGGCGCTCAATGCCGCCCTGGCTGACGTGCCCGAAC TGGCCAGACTCCTGGAGATCGACCCGTAATTGAAGCCCTACGCCGTGGACTTCCAGCGCA GGTATAAGCAGTTTAGCCAAATTTGAAGAACATTGGAGAAAAATGAAGGTGGTATTGATA AGTTTTCCAGAGGCTATGAATCATTGGCGTCCACAGATGTGCTGATGGTGGTTATACT GCAAAGAATGGGCCCGGGAGCAGAAGGAGTTTTTCTTACTGGAGATTTAATGGTTGGA ATCCATTTTCGTACCCATACAAAAACTGGATTATGGAAAATGGGAGCTGTATATCCAC CAAAGCAGAAATAATCTGTACTCGTGCCTCATGGATCCAAATTAAGGTAGTTATTA GTAAAAGCGGAGAGATCTTGTATCGTATTTACCGTGGGCAAAGTATGTGGTTCGTGAAG GGTGATATGTGAATTATGATTGGATACTGGATCCAGAACACTCATATGAGNTAAGC ATTCCAGACCAAAGAAGCCAGGAGTCTAAGAAATATGAATTCATGTGGGGAATTTCT TCCCATGGAAGGAAAGTAGCTTCTTATAACCATTTTACATGCCATGGTACTANCCANGA ATCANAGGCCCTGGNATACCAACTGCATCAGNTGGATGGCANTCATGGGAGCATGCTTAC TATGCCAGNCTTTGGNTACCAAATCACAAAGCTTTTGCAGCCTCCAGCCGTTATGC</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000158 unedited CCGCGGCCCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTACA AAAGCTTTTTATTGATTGAAATGAAAGACATTTTCTGAAATGCTACAATTACCATTTAG GGCTTCAGAAAGACTGAGATACTGGCATTAAACAAGATACTTAGTGGACAAGAGATCACA AAATAAAACACAAAATGAGACACGGATGAGTTCATACGTAATGGCTTTTATATTACCTTG GATATAATTTTATATCACTACTGCATATTTATTACAGTATTTCTAAACACAATTTGAA AAAAAGAAACAAAGAAACAATCTTGGTACCTCATAATTTAGACAAAAGATATCAGAACA AATAGAGCCACCAAAATATCCATCTTAAATACTGGGTACATTTAACAGAAATAATCATA TGACAAATGATTCAAATTTGAAATTTAAAGGATCAAATAATTAGCCAGGAAAGCAAAATG TTTTTAACATATTATATAACACTTCCATTTGAGAATCCTAGCTGCTAAGATGACTTGA AAATATGGTCTAGGATTCCTAATATTTTAAACATATTCTCCTATCTACTTAAATAAAAGT TTGCTGATTTGCATAAACCAATATTGAATTTTCCAGACACTTGGTGGCTTGGCTAGACAAC TGATTCTGAAAAGCATACATGTTATAAGCTGTGTGANAGTATACCAGAAAACAAAAC ACANATCTGCATCTGGTGGAGCTGAAATCAGGCCTCTTCAATTCGGCAGATCCACATTCT GAAGGATGAGGGCCACTCTGCTTGGNAGTACCCANAAGAGAATAGGNNACGCCATTATG TTCAAAGCCTCAGAAAAAATCAGTGCTGTGGTACAGTCTCTGATGCCCTNCATATCCG CTGCATCTGAATCTAGCACATTTTGAATNCCTGGCA</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_000158
Insert Size:	3160 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_000158.1 , NP_000149.1
RefSeq Size:	2913 bp
RefSeq ORF:	2109 bp
Locus ID:	2632
UniProt ID:	Q04446
Cytogenetics:	3p12.2
Domains:	isoamylase_N, alpha-amylase, Amy
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Starch and sucrose metabolism
Gene Summary:	<p>The protein encoded by this gene is a glycogen branching enzyme that catalyzes the transfer of alpha-1,4-linked glucosyl units from the outer end of a glycogen chain to an alpha-1,6 position on the same or a neighboring glycogen chain. Branching of the chains is essential to increase the solubility of the glycogen molecule and, consequently, in reducing the osmotic pressure within cells. Highest level of this enzyme are found in liver and muscle. Mutations in this gene are associated with glycogen storage disease IV (also known as Andersen's disease). [provided by RefSeq, Jul 2008]</p>