

# Recombinant Human AGL Protein, Myc/DDK-tagged, C13 and N15-labeled

**Cat. No.** AGL-2159H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>Product Overview</b> | AGL MS Standard C13 and N15-labeled recombinant protein (NP_000019) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | This gene encodes the glycogen debrancher enzyme which is involved in glycogen degradation. This enzyme has two independent catalytic activities which occur at different sites on the protein: a 4-alpha-glucotransferase activity and a amylo-1,6-glucosidase activity. Mutations in this gene are associated with glycogen storage disease although a wide range of enzymatic and clinical variability occurs which may be due to tissue-specific alternative splicing. Alternatively spliced transcripts encoding different isoforms have been described. |
| <b>Molecular Mass</b>   | 174.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>AA Sequence</b>      | MGHSKQIRILLNEMEKLEKTLFRLEQGYELQFRLGPTLQGKAVTVYTNYPFPGETF<br>NREKFRSLDWENPTEREDDSKYLNLQQSGSFQYYFLQGNEKSGGGYIVVDPIL<br>RVGADNHVLPDLCVTLQTFLAKCLGPFDEWESRLRVAKESGYNMIHFTPLQTLGLS<br>RSCYSLANQLELNPDFSRLPNRKYTWNDVGQLVEKLLKKEWNVICITDVVYNHTAANS<br>KWIQEHPECAYNLVNSPHLKPWWLDLALWRFSCDVAEGKYKEKGIPALIENDHHM<br>NSIRKIIWEDIFPKLKLWEFFQVDVNKAVEQFRRLLTQENRRVTKSDPNQHLTIQDPE                                                                                                                                                                                          |

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YRRFGCTVDMNIALTTFIPHDKGPAIEECCNWFHKRMEELNSEKHRLINYHQEQAV  
 NCLLGNVFYERLAGHGPKLGPVTRKHPLVTRYFTFPFEEIDFSMEESMIHLPNKACF  
 LMAHNGWVMGDDPLRNFAEPGSEVYLRRELICWGDSVKLRYGNKPEDCPYLWAH  
 MKKYTEITATYFQGVRLDNCHSTPLHVAEYMLDAARNLQPNLYVVAELFTGSEDLDN  
 VVFTRLGISSLIREAMSAYNSHEEGRLVYRYGGEPVGSFVQPCLRPLMPAIAHALFM  
 DITHDNECPIVHRSAYDALPSTTIVSMACCASGSTRGYDELVPHQISVVSEERFYTK  
 WNPEALPSNTGEVNFQSGIIAARCAISKLHQELGAKGFIQVYVDQVDEDIVAVTRHSP  
 SIHQSVVAVSRTAFRNPKTSFYSKEVPQMCIPGKIEEVVLEARTIERNTKPYRKDENS  
 INGTPDITVEIREHIQLNESKIVKQAGVATKGPNEYIQEIEFENLSPGSVIIFRVSLDPHA  
 QVAVGILRNHLTQFSPHFKSGSLAVDNADPILKIPFASLASRLTLAELNQILYRCESEE  
 KEDGGGCYDIPNWSALKYAGLQGLMSVLAIEIRPKNDLGHPFCNNLRSGDWMIDYVS  
 NRLISRSGTIAEVGKWLQAMFFYLKQIPRYLIPCYFDAILIGAYTTLLDTAWKQMSSFV  
 QNGSTFVKHLSLGSVQLCGVGKFPSPILSPALMDVPYRLNEITKEKEQCCVSLAAG  
 LPHFSSGIFRCWGRDTFIALRGILLITGRYVEARNIILAFAGTLRHGLIPNLLGEGIYAR  
 YNCRDAVWWWLQCIQDYCKMVPNGLDILKCPVSRMYPTDDSAPLPAGTLDQPLFE  
 VIQEAMQKHMQGIQFRERNAGPQIDRNMKDEGFNITAGVDEETGFVYGGNRFNCG  
 TWMDKMGESDRARNRGIPATPRDGSAVEIVGLSKSAVRWLELSKKNIFPYHEVTV  
 KRHGKAIKVSYDEWNRKIQDNFEKLFHVSEDPSDLNEKHPNLVHKGRIYKDSYGASS  
 PWCDYQLRPNFTIAMVVAPELFTTEKAWKALEIAEKKLLGPLGMKTLDPDDMVYCGI  
 YDNALDNDNYNLAKGFNYHQGPWLWPIGYFLRAKLYFSRLMGPETTAKTIVLVKN  
 VLSRHYVHLERSPWKGLPELTNENAQYCPFSCETQAWSIATILETLYDLTRTRPLEQ  
 KLISEEDLAANDILDYKDDDDKV

|                  |                                                                                            |
|------------------|--------------------------------------------------------------------------------------------|
| <b>Purity</b>    | > 80% as determined by SDS-PAGE and Coomassie blue staining                                |
| <b>Stability</b> | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| <b>Storage</b>   | Store at -80 centigrade. Avoid repeated freeze-thaw cycles.                                |

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**Concentration** 50 µg/mL as determined by BCA

**Storage Buffer** 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

**Gene Name** AGL amylo-alpha-1, 6-glucosidase, 4-alpha-glucanotransferase [ Homo sapiens (human) ]

**Official Symbol** AGL

**Synonyms** AGL; amylo-alpha-1, 6-glucosidase, 4-alpha-glucanotransferase; amylo 1, 6 glucosidase, 4 alpha glucanotransferase; glycogen debranching enzyme; glycogen storage disease type III; glycogen debrancher; amylo-1, 6-glucosidase, 4-alpha-glucanotransferase; GDE;

**Gene ID** 178

**mRNA Refseq** NM\_000028

**Protein Refseq** NP\_000019

**MIM** 610860

**UniProt ID** P35573

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