

**AGL Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2402a****Specification**

---

**AGL Antibody (Center) - Product Information**

Application	WB, IF, E
Primary Accession	<a href="#">P35573</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	357-387

**AGL Antibody (Center) - Additional Information****Gene ID** 178**Other Names**

Glycogen debranching enzyme, Glycogen debrancher, 4-alpha-glucanotransferase, Oligo-1, 4-1, 4-glucantransferase, Amylo-alpha-1, 6-glucosidase, Amylo-1, 6-glucosidase, Dextrin 6-alpha-D-glucosidase, AGL, GDE

**Target/Specificity**

This AGL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 357-387 amino acids from the Central region of human AGL.

**Dilution**

WB~~1:1000

IF~~1:10~50

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

AGL Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**AGL Antibody (Center) - Protein Information****Name** AGL

**Synonyms** GDE

**Function** Multifunctional enzyme acting as 1,4-alpha-D-glucan:1,4- alpha-D-glucan 4-alpha-D-glycosyltransferase and amylo-1,6-glucosidase in glycogen degradation.

**Cellular Location**

Cytoplasm. Note=Under glycogenolytic conditions localizes to the nucleus

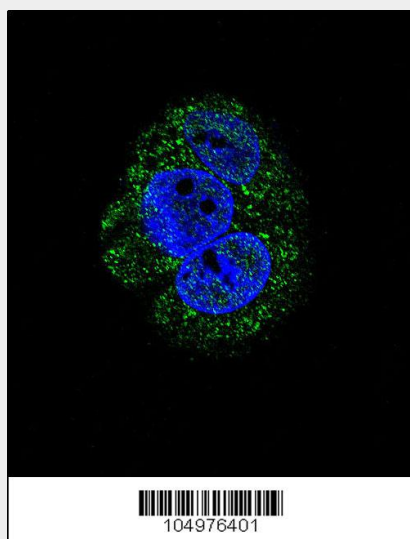
**Tissue Location**

Liver, kidney and lymphoblastoid cells express predominantly isoform 1; whereas muscle and heart express not only isoform 1, but also muscle-specific isoform mRNAs (isoforms 2, 3 and 4). Isoforms 5 and 6 are present in both liver and muscle

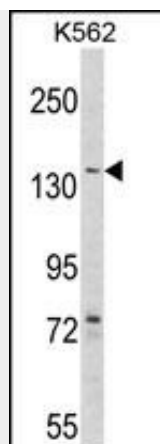
**AGL Antibody (Center) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**AGL Antibody (Center) - Images**

Confocal immunofluorescent analysis of AGL Antibody (Center)(Cat#AP2402a) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of hAGL-C371 (Cat. #AP2402a) in K562 cell line lysates (35ug/lane). AGL (arrow) was detected using the purified Pab.

#### **AGL Antibody (Center) - Background**

AGL is a 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 the AGL 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.

#### **AGL Antibody (Center) - References**

Horinishi, A., et al., J. Hum. Genet. 47(2):55-59 (2002).  
Bao, Y., et al., Genomics 38(2):155-165 (1996).  
Yang, B.Z., et al., J. Biol. Chem. 267(13):9294-9299 (1992).  
Yang-Feng, T.L., et al., Genomics 13(4):931-934 (1992).  
Bao, Y., et al., Gene 197 (1-2), 389-398 (1997).

#### **AGL Antibody (Center) - Citations**

- [Loss of glycogen debranching enzyme AGL drives bladder tumor growth via induction of hyaluronic acid synthesis.](#)
- [Muscle glycogen remodeling and glycogen phosphate metabolism following exhaustive exercise of wild type and laforin knockout mice.](#)
- [Genetic depletion of the malin E3 ubiquitin ligase in mice leads to lafora bodies and the accumulation of insoluble laforin.](#)
- [Fast-twitch sarcomeric and glycolytic enzyme protein loss in inclusion body myositis.](#)
- [Abnormal metabolism of glycogen phosphate as a cause for Lafora disease.](#)
- [A role for AGL ubiquitination in the glycogen storage disorders of Lafora and Cori's disease.](#)