

Goat anti-Laforin (isoform a), Biotinylated Antibody
Peptide-affinity purified goat antibody
Catalog # AF4381a**Specification**

Goat anti-Laforin (isoform a), Biotinylated Antibody - Product Information

Application	WB, IHC, Pep-ELISA
Primary Accession	O95278
Other Accession	NP_005661.1
Reactivity	Human, Mouse, Rat, Dog, Bovine
Host	Goat
Clonality	Polyclonal
Calculated MW	37158

Goat anti-Laforin (isoform a), Biotinylated Antibody - Additional Information**Gene ID** 7957**Other Names**

EPM2A; epilepsy, progressive myoclonus type 2A, Lafora disease (laforin); EPM2; MELF; LAFPTPase; epilepsy, progressive myoclonus type 2, Lafora disease (laforin); glucan phosphatase; lafora PTPase

Dilution

WB~~1:1000
IHC~~1:100~500
Pep-ELISA~~N/A

Format

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen

This antibody is expected to recognize isoform a (NP_005661.1) only.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat anti-Laforin (isoform a), Biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat anti-Laforin (isoform a), Biotinylated Antibody - Protein Information**Name** EPM2A

Function

Plays an important role in preventing glycogen hyperphosphorylation and the formation of insoluble aggregates, via its activity as glycogen phosphatase, and by promoting the ubiquitination of proteins involved in glycogen metabolism via its interaction with the E3 ubiquitin ligase NHLRC1/malin. Shows strong phosphatase activity towards complex carbohydrates in vitro, avoiding glycogen hyperphosphorylation which is associated with reduced branching and formation of insoluble aggregates (PubMed:[16901901](http://www.uniprot.org/citations/16901901), PubMed:[23922729](http://www.uniprot.org/citations/23922729), PubMed:[25538239](http://www.uniprot.org/citations/25538239), PubMed:[25544560](http://www.uniprot.org/citations/25544560), PubMed:[26231210](http://www.uniprot.org/citations/26231210)). Dephosphorylates phosphotyrosine and synthetic substrates, such as para- nitrophenylphosphate (pNPP), and has low activity with phosphoserine and phosphothreonine substrates (in vitro) (PubMed:[11001928](http://www.uniprot.org/citations/11001928), PubMed:[11220751](http://www.uniprot.org/citations/11220751), PubMed:[11739371](http://www.uniprot.org/citations/11739371), PubMed:[14532330](http://www.uniprot.org/citations/14532330), PubMed:[14722920](http://www.uniprot.org/citations/14722920), PubMed:[16971387](http://www.uniprot.org/citations/16971387), PubMed:[18617530](http://www.uniprot.org/citations/18617530), PubMed:[22036712](http://www.uniprot.org/citations/22036712), PubMed:[23922729](http://www.uniprot.org/citations/23922729)). Has been shown to dephosphorylate MAPT (By similarity). Forms a complex with NHLRC1/malin and HSP70, which suppresses the cellular toxicity of misfolded proteins by promoting their degradation through the ubiquitin-proteasome system (UPS). Acts as a scaffold protein to facilitate PPP1R3C/PTG ubiquitination by NHLRC1/malin (PubMed:[23922729](http://www.uniprot.org/citations/23922729)). Also promotes proteasome-independent protein degradation through the macroautophagy pathway (PubMed:[20453062](http://www.uniprot.org/citations/20453062)).

Cellular Location

Cytoplasm. Note=Under glycogenolytic conditions localizes to the nucleus [Isoform 2]: Cytoplasm. Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Cell membrane. Nucleus. Note=Also found in the nucleus. [Isoform 5]: Cytoplasm. Nucleus

Tissue Location

Expressed in heart, skeletal muscle, kidney, pancreas and brain. Isoform 4 is also expressed in the placenta

Goat anti-Laforin (isoform a), Biotinylated Antibody - 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](#)

Goat anti-Laforin (isoform a), Biotinylated Antibody - Images