

GGTLA1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7392a**Specification**

GGTLA1 Antibody (N-term) - Product Information

Application	FC, IHC-P, WB,E
Primary Accession	P36269
Other Accession	Q9Z2A9
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	62261
Antigen Region	130-156

GGTLA1 Antibody (N-term) - Additional Information**Gene ID** 2687**Other Names**

Gamma-glutamyltransferase 5, GGT 5, Gamma-glutamyl transpeptidase-related enzyme, GGT-rel, Gamma-glutamyltransferase-like activity 1, Gamma-glutamyltranspeptidase 5, Glutathione hydrolase 5, Leukotriene-C4 hydrolase, Gamma-glutamyltransferase 5 heavy chain, Gamma-glutamyltransferase 5 light chain, GGT5, GGTLA1

Target/Specificity

This GGTLA1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 130-156 amino acids from the N-terminal region of human GGTLA1.

Dilution

FC~~1:10~50

IHC-P~~1:50~100

WB~~1:1000

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

GGTLA1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GGTLA1 Antibody (N-term) - Protein Information

Name GGT5

Synonyms GGTLA1

Function Cleaves the gamma-glutamyl bond of extracellular glutathione tripeptide (gamma-Glu-Cys-Gly) and certain glutathione conjugates (PubMed:[1676842](#), PubMed:[21447318](#)). Hydrolyzes glutathione releasing L- Glu and Cys-Gly dipeptide which is further metabolized to maintain extracellular cysteine levels but also to provide cysteine necessary for intracellular glutathione synthesis (PubMed:[1676842](#), PubMed:[21447318](#)). Among glutathione-S-conjugates metabolizes leukotriene C4 (LTC4) and S-geranylgeranyl-glutathione (GGG), but is inactive toward gamma-glutamyl leucine. Converts extracellular LTC4 to LTD4 during acute inflammatory response. Acts as a negative regulator of GGG bioactivity. GGT5 (via GGG catabolism) and ABCC1 (via extracellular transport) establish GGG gradients within lymphoid tissues to position P2RY8-positive lymphocytes at germinal centers in lymphoid follicles and restrict their chemotactic transmigration from blood vessels to bone marrow parenchyma (By similarity). The transpeptidation reaction, i.e. the transfer of gamma-glutamyl moiety to an acceptor molecule to yield a new gamma-glutamyl compound requires high concentration of dipeptide acceptor and is considered nonphysiological (PubMed:[21447318](#), PubMed:[29667297](#)).

Cellular Location

Membrane {ECO:0000250|UniProtKB:Q9Z2A9}; Single- pass type II membrane protein {ECO:0000250|UniProtKB:Q9Z2A9}

Tissue Location

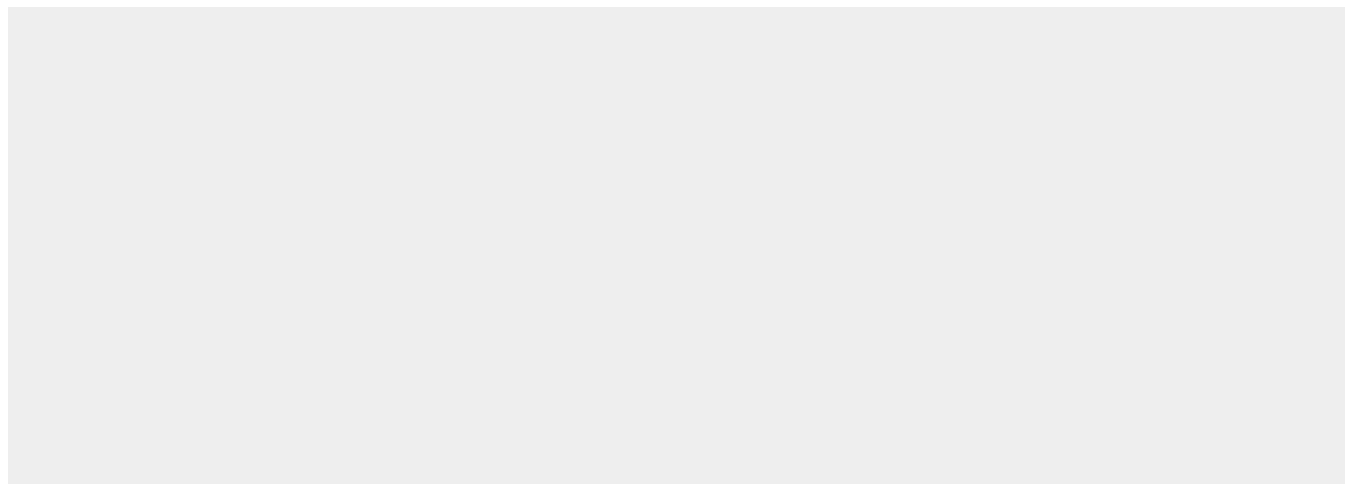
Expressed in follicular dendritic cells in lymphoid follicles (at protein level).

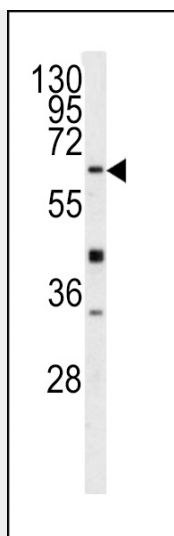
GGTLA1 Antibody (N-term) - Protocols

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

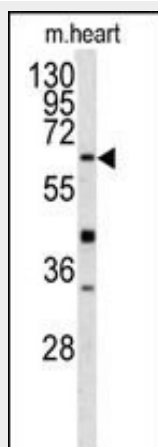
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GGTLA1 Antibody (N-term) - Images

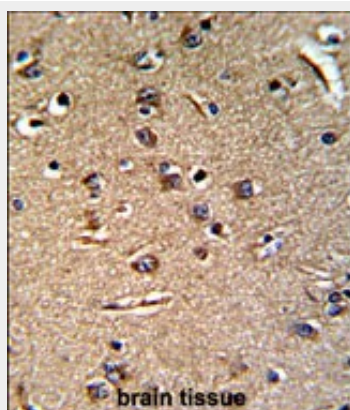




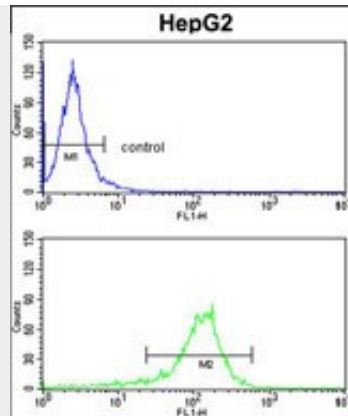
Western blot analysis of GGTLA1 antibody (N-term) (Cat.# AP7392a) in Y79 cell line lysates (35ug/lane). GGTLA1 (arrow) was detected using the purified Pab.



Western blot analysis of GGTLA1 antibody (N-term) (Cat.# AP7392a) in mouse heart tissue lysates (35ug/lane). GGTLA1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain reacted with GGTLA1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



GGTLA1 Antibody (N-term) (Cat.#AP7392a) flow cytometry analysis of HepG2 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

GGTLA1 Antibody (N-term) - Background

This gene is a member of gamma-glutamyl transpeptidase enzymes. This enzyme consists of a heavy and a light chain, and is able to hydrolyze the gamma-glutamyl moiety of glutathione. It converts leukotriene C4 to leukotriene D4, however, it doesn't convert synthetic substrates that are commonly used to assay gamma-glutamyl transpeptidase.

GGTLA1 Antibody (N-term) - References

Heisterkamp,N., Hum. Genet. 123 (4), 321-332 (2008)
Enoiu,M., Free Radic. Biol. Med. 29 (9), 825-833 (2000)