

GGT1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19816a

Specification

GGT1 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	P19440
Other Accession	A6NGU5 , P36268 , P07314 , P20735 , Q60928 , NP_038347.2
Reactivity	Human, Mouse
Predicted	Pig, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	61410
Antigen Region	124-152

GGT1 Antibody (N-term) - Additional Information

Gene ID 2678

Other Names

Gamma-glutamyltranspeptidase 1, GGT 1, Gamma-glutamyltransferase 1, Glutathione hydrolase 1, Leukotriene-C4 hydrolase, CD224, Gamma-glutamyltranspeptidase 1 heavy chain, Gamma-glutamyltranspeptidase 1 light chain, GGT1, GGT

Target/Specificity

This GGT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 124-152 amino acids from the N-terminal region of human GGT1.

Dilution

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 purified through a protein A column, followed by peptide affinity purification.

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

GGT1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GGT1 Antibody (N-term) - Protein Information

Name GGT1**Synonyms** GGT

Function Cleaves the gamma-glutamyl bond of extracellular glutathione (gamma-Glu-Cys-Gly), glutathione conjugates (such as maresin conjugate (13R)-S-glutathionyl-(14S)-hydroxy-(4Z,7Z,9E,11E,16Z,19Z)- docosahexaenoate, MCTR1) and other gamma-glutamyl compounds (such as leukotriene C4, LTC4) (PubMed:[17924658](#), PubMed:[21447318](#), PubMed:[27791009](#)). The metabolism of glutathione by GGT1 releases free glutamate and the dipeptide cysteinyl-glycine, which is hydrolyzed to cysteine and glycine by dipeptidases (PubMed:[27791009](#)). In the presence of high concentrations of dipeptides and some amino acids, can also catalyze a transpeptidation reaction, transferring the gamma-glutamyl moiety to an acceptor amino acid to form a new gamma-glutamyl compound (PubMed:[17924658](#), PubMed:[21447318](#), PubMed:[7673200](#), PubMed:[7759490](#), PubMed:[8095045](#), PubMed:[8827453](#)). Contributes to cysteine homeostasis, glutathione homeostasis and in the conversion of the leukotriene LTC4 to LTD4.

Cellular Location

Cell membrane; Single-pass type II membrane protein {ECO:0000250|UniProtKB:P07314}

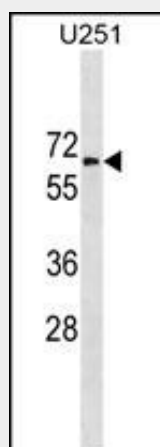
Tissue Location

Detected in fetal and adult kidney and liver, adult pancreas, stomach, intestine, placenta and lung. There are several other tissue-specific forms that arise from alternative promoter usage but that produce the same protein

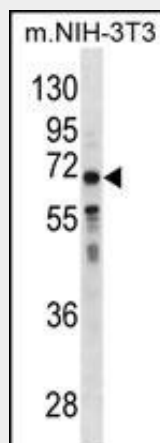
GGT1 Antibody (N-term) - Protocols

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](#)

GGT1 Antibody (N-term) - Images

GGT1 Antibody (N-term) (Cat. #AP19816a) western blot analysis in U251 cell line lysates (35ug/lane). This demonstrates the GGT1 antibody detected the GGT1 protein (arrow).



GGT1 Antibody (N-term) (Cat. #AP19816a) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane). This demonstrates the GGT1 antibody detected the GGT1 protein (arrow).

GGT1 Antibody (N-term) - Background

The enzyme encoded by this gene catalyzes the transfer of the glutamyl moiety of glutathione to a variety of amino acids and dipeptide acceptors. The enzyme is composed of a heavy chain and a light chain, which are derived from a single precursor protein, and is present in tissues involved in absorption and secretion. This enzyme is a member of the gamma-glutamyltransferase protein family, of which many members have not yet been fully characterized and some of which may represent pseudogenes. This gene is classified as type I gamma-glutamyltransferase. Multiple alternatively spliced variants, encoding the same protein, have been identified.

GGT1 Antibody (N-term) - References

Speliotes, E.K., et al. Hepatology 52(3):904-912(2010)
Ikeda, M., et al. Scand. J. Clin. Lab. Invest. 70(3):171-179(2010)
Fujita, M., et al. Exp. Biol. Med. (Maywood) 235(3):335-341(2010)
Kamatani, Y., et al. Nat. Genet. 42(3):210-215(2010)
Diergaarde, B., et al. Pancreatology 10 (2-3), 194-200 (2010) :