10320 Camino Santa Fe, Suite G
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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

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

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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:7673200, PubMed:7759490, PubMed:8095045, PubMed:8827453, PubMed:21447318). 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}

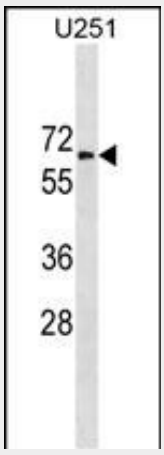
Tissue Location
Detected in fetal and adult kidney and liver, adult pancreas, stomach, intestine, placenta and lung. There are several other tissue-specific forms that arise from alternative promoter usage but that produce the same protein

GGT1 Antibody (N-term) - Protocols

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

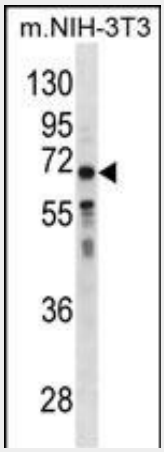
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GGT1 Antibody (N-term) - Images



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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

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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) :