

GGT1 / GGT Antibody (aa1-226)
Rabbit Polyclonal Antibody
Catalog # ALS15960**Specification**

GGT1 / GGT Antibody (aa1-226) - Product Information

Application	WB, IHC-P
Primary Accession	P19440
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A

GGT1 / GGT Antibody (aa1-226) - Additional Information**Gene ID** 2678**Other Names**

Gamma-glutamyltranspeptidase 1, GGT 1, 2.3.2.2, Gamma-glutamyltransferase 1, Glutathione hydrolase 1, 3.4.19.13, Leukotriene-C4 hydrolase, 3.4.19.14, CD224, Gamma-glutamyltranspeptidase 1 heavy chain, Gamma-glutamyltranspeptidase 1 light chain, GGT1, GGT

Target/Specificity

Human GGT1 / GGT

Reconstitution & Storage

Keep as concentrated solution. Aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Precautions

GGT1 / GGT Antibody (aa1-226) is for research use only and not for use in diagnostic or therapeutic procedures.

GGT1 / GGT Antibody (aa1-226) - 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:<a

[21447318](http://www.uniprot.org/citations/21447318), PubMed: [27791009](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17924658), PubMed: [21447318](http://www.uniprot.org/citations/21447318), PubMed: [7673200](http://www.uniprot.org/citations/7673200), PubMed: [7759490](http://www.uniprot.org/citations/7759490), PubMed: [8095045](http://www.uniprot.org/citations/8095045), PubMed: [8827453](http://www.uniprot.org/citations/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

Volume

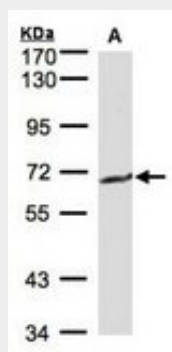
50 µl

GGT1 / GGT Antibody (aa1-226) - Protocols

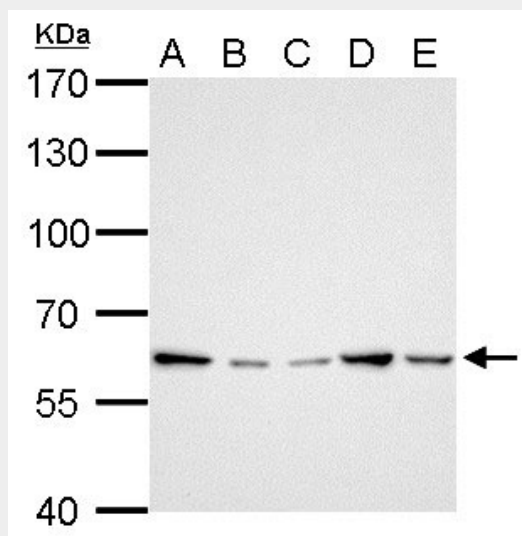
Provided below are standard protocols that you may find useful for product applications.

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

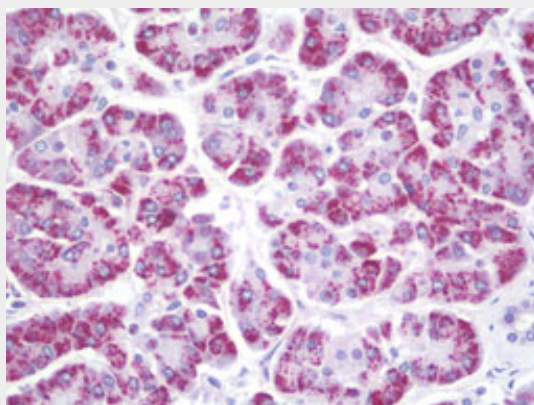
GGT1 / GGT Antibody (aa1-226) - Images



Sample (30 ug of whole cell lysate). A: MOLT4. 7.5% SDS PAGE. GGT1 / GGT antibody diluted at 1:500



GGT1 antibody detects GGT1 protein by Western blot analysis.



Anti-GGT1 / GGT antibody IHC staining of human pancreas.

GGT1 / GGT Antibody (aa1-226) - Background

Cleaves the gamma-glutamyl bond of extracellular glutathione (gamma-Glu-Cys-Gly), glutathione conjugates, and other gamma-glutamyl compounds. The metabolism of glutathione releases free glutamate and the dipeptide, cysteinyl-glycine, which is hydrolyzed to cysteine and glycine by dipeptidases. 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. Initiates extracellular glutathione (GSH) breakdown, provides cells with a local cysteine supply and contributes to maintain intracellular GSH level. It is part of the cell antioxidant defense mechanism. Isoform 3 seems to be inactive.

GGT1 / GGT Antibody (aa1-226) - References

Rajpert-De Meyts E., et al. Proc. Natl. Acad. Sci. U.S.A. 85:8840-8844(1988).
Sakamuro D., et al. Gene 73:1-9(1988).
Pitot H.C., et al. Toxicol. Appl. Pharmacol. 97:23-34(1989).
Goodspeed D.C., et al. Gene 76:1-9(1989).
Pawlak A., et al. J. Biol. Chem. 265:3256-3262(1990).