

GGT1 / GGT Antibody (clone 1F9)
Mouse Monoclonal Antibody
Catalog # ALS14058**Specification**

GGT1 / GGT Antibody (clone 1F9) - Product Information

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

GGT1 / GGT Antibody (clone 1F9) - 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

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

GGT1 / GGT Antibody (clone 1F9) is for research use only and not for use in diagnostic or therapeutic procedures.

GGT1 / GGT Antibody (clone 1F9) - 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

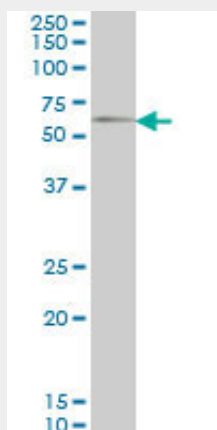
Detected in fetal and adult kidney and liver, adult pancreas, stomach, intestine, placenta and lung. There are several other tissue-specific forms that arise from alternative promoter usage but that produce the same protein

GGT1 / GGT Antibody (clone 1F9) - Protocols

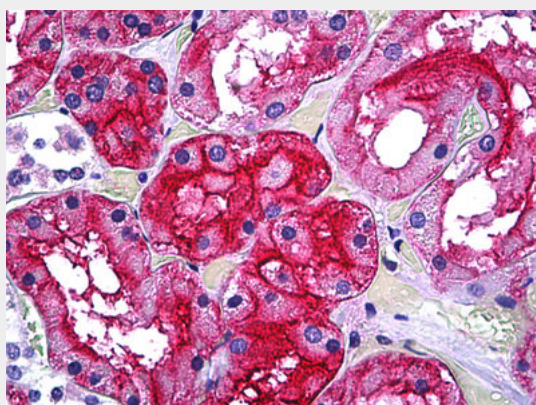
Provided below are standard protocols that you may find useful for product applications.

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

GGT1 / GGT Antibody (clone 1F9) - Images



GGT1 monoclonal antibody clone 1F9 Western blot of GGT1 expression in NIH/3T3.



Anti-GGT1 / GGT antibody IHC of human kidney, tubules.

GGT1 / GGT Antibody (clone 1F9) - 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 (clone 1F9) - 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).