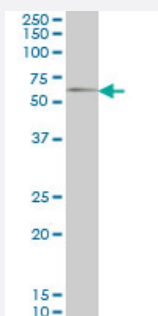


GGT1 monoclonal antibody (M01), clone 1F9

Catalog # H00002678-M01

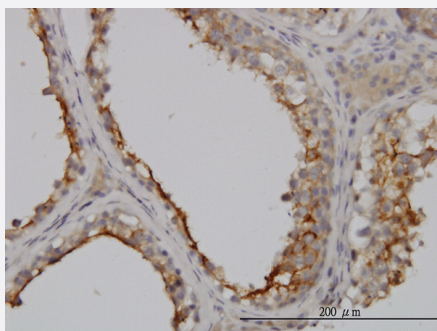
Size 100 ug

Applications



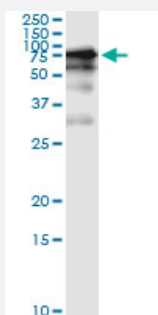
Western Blot (Cell lysate)

GGT1 monoclonal antibody (M01), clone 1F9 Western Blot analysis of GGT1 expression in NIH/3T3 (Cat # L018V1).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to GGT1 on formalin-fixed paraffin-embedded human testis. [antibody concentration 3 ug/ml]

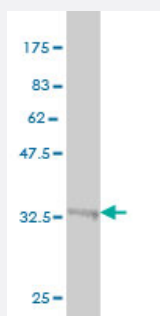
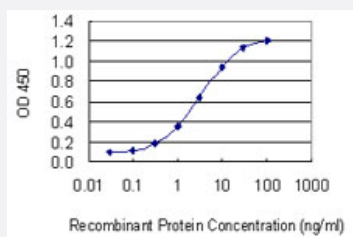


Immunoprecipitation

Immunoprecipitation of GGT1 transfected lysate using anti-GGT1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with GGT1 MaxPab rabbit polyclonal antibody.

Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged GGT1 is 0.1 ng/ml as a capture antibody.



Western Blot detection against Immunogen (35.64 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant GGT1.
Immunogen	GGT1 (NP_005256, 381 a.a. ~ 470 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	TAHLSVVAEDGSAVSATSTINLYFGSKVRSPVSGILFNNEMDDFSSPSITNEFGVPPSPANFIQPG KQPLSSMCPTIMVGQDGGQVRMVVG
Host	Mouse
Reactivity	Human, Mouse
Interspecies Antigen Sequence	Mouse (80); Rat (83)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (35.64 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

GGT1 monoclonal antibody (M01), clone 1F9 Western Blot analysis of GGT1 expression in NIH/3T3 (Cat # L018V1).

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to GGT1 on formalin-fixed paraffin-embedded human testis. [antibody concentration 3 ug/ml]

[Protocol Download](#)

- Immunoprecipitation

Immunoprecipitation of GGT1 transfected lysate using anti-GGT1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with GGT1 MaxPab rabbit polyclonal antibody.

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged GGT1 is 0.1 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

Gene Info — GGT1

Entrez GeneID	2678
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GeneBank Accession#	NM_005265
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Protein Accession#	NP_005256
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Gene Name	GGT1
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Gene Alias	CD224, D22S672, D22S732, GGT, GTG, MGC96892, MGC96904, MGC96963
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Gene Description	gamma-glutamyltransferase 1
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Omim ID [231950](#)

Gene Ontology [Hyperlink](#)

Gene Summary

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. [provided by RefSeq]

Other Designations

OTTHUMP00000028921|OTTHUMP00000159078|gamma-glutamyl transpeptidase|glutamyl transpeptidase

Publication Reference

- [Rapid imaging of thymoma and thymic carcinoma with a fluorogenic probe targeting \$\gamma\$ -glutamyltranspeptidase.](#)

Daisuke Yoshida, Mako Kamiya, Shun Kawashima, Takafusa Yoshioka, Haruaki Hino, Atsuki Abe, Kyohhei Fujita, Ryosuke Kojima, Aya Shinozaki-Ushiku, Yasuteru Urano, Jun Nakajima .

Scientific Reports 2023 Mar; 13(1):3757.

Application: IHC-P, Human, Human fat tissue, Human thymic parenchyma, Human thymoma tumor

- [\$\gamma\$ -Glutamyl Hydroxymethyl Rhodamine Green Fluorescence as a Prognostic Indicator for Lung Cancer.](#)

Shun Kawashima, Takafusa Yoshioka, Haruaki Hino, Kentaro Kitano, Kazuhiro Nagayama, Masaaki Sato, Ryosuke Kojima, Mako Kamiya, Yasuteru Urano, Jun Nakajima.

General Thoracic and Cardiovascular Surgery 2020 Dec; 68(12):1418.

Application: IHC-P, Human, Human lung cancer

- [A novel method for rapid detection of a Helicobacter pylori infection using a \$\gamma\$ -glutamyltranspeptidase-activatable fluorescent probe.](#)

Akashi T, Isomoto H, Matsushima K, Kamiya M, Kanda T, Nakano M, Onoyama T, Fujii M, Akada J, Akazawa Y, Ohnita K, Takeshima F, Nakao K, Urano Y.

Scientific Reports 2019 Jul; 9(1):9467.

Application: IF, IHC, Human, Human stomach biopsy specimens

- [Rapid detection of metastatic lymph nodes of colorectal cancer with a gamma-glutamyl transpeptidase-activatable fluorescence probe.](#)

Kubo H, Hanaoka K, Kuriki Y, Komatsu T, Ueno T, Kojima R, Kamiya M, Murayama Y, Otsuji E, Urano Y.

Scientific Reports 2018 Dec; 8(1):17781.

Application: IHC-P, WB, Human, Mouse, HCT-116, HT-29 cells, Human colon cancer, Mouse tumors

- [Reduced Hepatocellular Expression of Canalicular Transport Proteins in Infants with Neonatal Cholestasis and Congenital Hypopituitarism.](#)

Grammatikopoulos T, Deheragoda M, Strautnieks S, Neves Souza L, Hinds R, Thompson RJ, Hadzic N.

The Journal of Pediatrics 2018 Sep; 200:181.

Application: IHC, Human, Liver biopsy specimen from an infant with liver disease

- [Gamma-glutamyltransferase activity in exosomes as a potential marker for prostate cancer.](#)

Kawakami K, Fujita Y, Matsuda Y, Arai T, Horie K, Kameyama K, Kato T, Masunaga K, Kasuya Y, Tanaka M, Mizutani K, Deguchi T, Ito M.

BMC Cancer 2017 May; 17(1):316.

Application: IHC-P, WB-Ce, Human, C4, C4-2, C4-2B, LNCaP cells, Human prostate cancer, Human serum

- [Polymorphisms in ABCB11 and ATP8B1 Associated with Development of Severe Intrahepatic Cholestasis in Hodgkin's Lymphoma.](#)

Blackmore L, Knisely AS, Hartley JL, McKay K, Gissen P, Marcus R, Shawcross DL.

Journal of Clinical and Experimental Hepatology 2013 Jun; 3(2):159.

Application: IHC, Human, Human liver

- [A Quantitative Proteomic Analysis Uncovers the Relevance of CUL3 in Bladder Cancer Aggressiveness.](#)

Grau L, Luque-Garcia JL, Gonzalez-Peramato P, Theodorescu D, Palou J, Fernandez-Gomez JM, Sanchez-Carbayo M.

PLoS One 2013 Jan; 8(1):e53328.

Application: WB, Human, Bladder cancer cells T24, T25T

- [Autocatalytic cleavage of human {gamma}-glutamyl transpeptidase is highly dependent on N-glycosylation at asparagine 95.](#)

West MB, Wickham S, Quinalty LM, Pavlovicz RE, Li C, Hanigan MH.

The Journal of Biological Chemistry 2011 Aug; 283(33):28876.

Application: WB-Ce, WB-Tr, Human, Yeast, HEK293, P. pastoris X33 cells

- [Analysis of site-specific glycosylation of renal and hepatic γ-glutamyl transpeptidase from normal human tissue.](#)

West MB, Segu ZM, Feasley CL, Kang P, Klouckova I, Li C, Novotny MV, West CM, Mechref Y, Hanigan MH.

The Journal of Biological Chemistry 2010 Jul; 285(38):29511.

Application: WB-Ti, Human, Human liver, kidney

Pathway

- [Arachidonic acid metabolism](#)

- [Cyanoamino acid metabolism](#)
- [Glutathione metabolism](#)
- [Metabolic pathways](#)
- [Selenoamino acid metabolism](#)
- [Taurine and hypotaurine metabolism](#)

Disease

- [Alzheimer disease](#)
- [Arsenic Poisoning](#)
- [Cognition](#)
- [Disease Progression](#)
- [DNA Damage](#)
- [Fatty Liver](#)
- [Genetic Predisposition to Disease](#)
- [Metabolic Syndrome X](#)
- [Pancreatic Neoplasms](#)
- [Sleep Apnea](#)