abcam

ab55138

Anti-GGT1/GGT antibody [1F9]

Anti-GGT1/GGT antibody [1F9] (ab55138) is a mouse monoclonal antibody detecting GGT1/GGT in **Western Blot, Flow Cytometry, IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- Over 10 publications
- Trusted since 2007

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human GGT1 aa 350 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P19440
Carrier free	Yes
Clone number	1F9
Purification technique	Affinity purification Protein A
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information GGT1

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. Isoform 3. Seems to be catalytically inactive.

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-GGT1/GGT antibody [1F9] (ab55138) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse samples.

What is the molecular weight of GGT1/GGT?
Anti-GGT1/GGT [1F9] (ab55138) specifically detects a band for GGT1/GGT (UniProt: P19440) at a molecular weight of 61kDa.

Trusted by the scientific community
Anti-GGT1/GGT [1F9] (ab55138) was first used in a scientific publication in 2007 and has been cited over 10 times in peer-reviewed journals.

Reviewed by scientists
Anti-GGT1/GGT [1F9] (ab55138) has over 10 independent reviews from customers.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

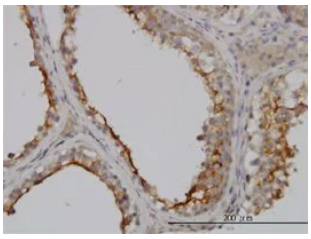
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

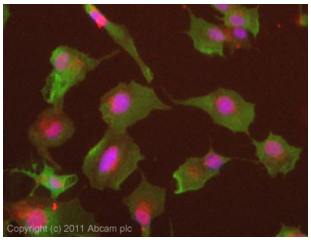
4 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GGT1/GGT antibody [1F9] (ab55138)

GGT1/GGT Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-GGT1/GGT antibody

GGT1/GGT antibody (ab55138) used in immunohistochemistry at 3ug/ml on formalin fixed and paraffin embedded human testis.
This image was generated using the ascites version of the product.

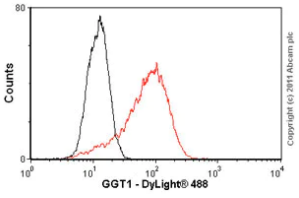


Immunocytochemistry/ Immunofluorescence - Anti-GGT1/GGT antibody [1F9] (ab55138)

GGT1/GGT Immunocytochemistry/ Immunofluorescence staining using mouse Anti-GGT1/GGT antibody

ICC/IF image of ab55138 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab55138, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

This image was generated using the ascites version of the product.

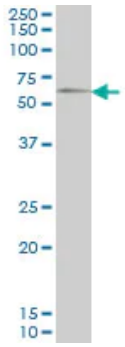


Flow Cytometry - Anti-GGT1/GGT antibody [1F9] (ab55138)

GGT1/GGT Flow Cytometry staining using mouse Anti-GGT1/GGT antibody

Overlay histogram showing HEK293 cells stained with ab55138 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab55138, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HEK293 cells fixed with 100% methanol used under the same conditions.
Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.

This image was generated using the ascites version of the product.



Western blot - Anti-GGT1/GGT antibody [1F9] (ab55138)

GGT1/GGT Western blot staining using mouse Anti-GGT1/GGT antibody

GGT1/GGT antibody (ab55138) at 1ug/lane + NIH/3T3 cell lysate at 25ug/lane.
This image was generated using the ascites version of the product.

All lanes:
Western blot - Anti-GGT1/GGT antibody [1F9] (ab55138)

Predicted band size: 61 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.