10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GGT5 HC Antibody

Catalog # AP53815

Product Information

Application	WB, IF/IC
Primary Accession	P36269
Reactivity	Human, Mouse, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62261

Additional Information

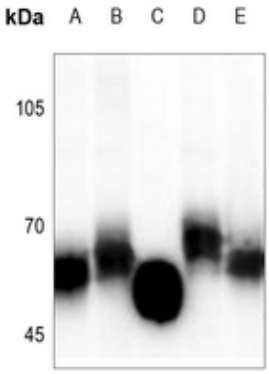
Gene ID	2687
Other Names	GGTLA1; Gamma-glutamyltransferase 5; GGT 5; Gamma-glutamyl transpeptidase-related enzyme; GGT-rel; Gamma-glutamyltransferase-like activity 1; Gamma-glutamyltranspeptidase 5; Glutathione hydrolase 5; Leukotriene-C4 hydrolase
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GGT5 HC. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

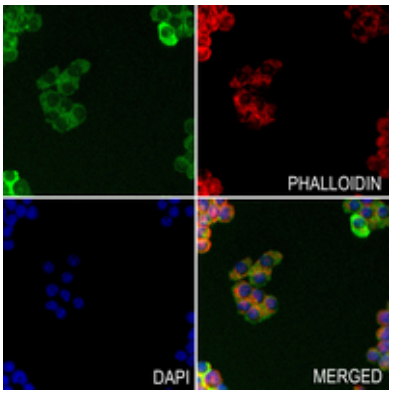
Name	GGT5
Synonyms	GGTLA1
Function	Cleaves the gamma-glutamyl bond of extracellular glutathione tripeptide (gamma-Glu-Cys-Gly) and certain glutathione conjugates (PubMed:1676842, PubMed:21447318). Hydrolyzes glutathione releasing L- Glu and Cys-Gly dipeptide which is further metabolized to maintain extracellular cysteine levels but also to provide cysteine necessary for intracellular glutathione synthesis (PubMed:1676842, PubMed:21447318). Among glutathione-S-conjugates metabolizes leukotriene C4 (LTC4) and S-geranylgeranyl-glutathione (GGG), but is inactive toward gamma-glutamyl leucine. Converts extracellular LTC4 to LTD4 during acute inflammatory response. Acts as a negative regulator of GGG bioactivity. GGT5 (via GGG catabolism) and ABCC1 (via extracellular transport) establish GGG gradients

	within lymphoid tissues to position P2RY8-positive lymphocytes at germinal centers in lymphoid follicles and restrict their chemotactic transmigration from blood vessels to bone marrow parenchyma (By similarity). The transpeptidation reaction, i.e. the transfer of gamma-glutamyl moiety to an acceptor molecule to yield a new gamma-glutamyl compound requires high concentration of dipeptide acceptor and is considered nonphysiological (PubMed:21447318, PubMed:29667297).
Cellular Location	Membrane {ECO:0000250|UniProtKB:Q9Z2A9}; Single- pass type II membrane protein {ECO:0000250|UniProtKB:Q9Z2A9}
Tissue Location	Expressed in follicular dendritic cells in lymphoid follicles (at protein level).

Images



Western blot analysis of GGT5 HC expression in H460 (A), LO2 (B), mouse kidney (C), MCF7 (D), HuT78 (E) whole cell lysates. (Predicted band size: 62 kD; Observed band size: 62 kD)



Immunofluorescent analysis of GGT5 HC staining in MDAMB231 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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