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Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody
Mouse Monoclonal Antibody
Catalog # AH13273

Specification

Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody - Product Information

Application	,3,4,10,
Primary Accession	P55259
Other Accession	53985
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, lambda
Calculated MW	59480

Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody - Additional Information

Gene ID 2813

Other Names
Glycoprotein 2 (zymogen granule membrane); GP2; Pancreatic zymogen granule membrane associated protein GP2; Pancreatic zymogen granule membrane protein GP-2; ZAP75

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody - Protein Information

Name GP2 (HGNC:4441)

Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody - Background

GP2 (glycoprotein 2), also known as ZAP75, is a 537 amino acid secreted protein. It is an integral membrane protein that is secreted from intracellular zymogen granules and associates with the plasma membrane via glycosylphosphatidylinositol (GPI) linkage. GP2 is cleaved and then released into the pancreatic duct along with exocrine secretions. GP2 binds pathogens such as enterobacteria, thereby playing an important role in the innate immune response. The C-terminus of this protein is related to the C-terminus of the protein encoded by the neighboring gene, uromodulin (UMOD). GP2 is also expressed on the apical plasma membrane of specialized microfold (M) cells among enterocytes and serves as a transcytotic receptor for mucosal antigens. M cells are considered a promising target for oral vaccination against various infectious diseases.

Function
Functions as an intestinal M-cells transcytotic receptor specific of type-I-piliated bacteria that participates to the mucosal immune response toward these bacteria. At the apical membrane of M- cells binds fimH, a protein of the bacteria type I pilus tip. Internalizes bound bacteria, like E.coli and S.typhimurium, from the lumen of the intestine and delivers them, through M-cells, to the underlying organized lymphoid follicles where they are captured by antigen-presenting dendritic cells to ellicit a mucosal immune response.

Cellular Location
Zymogen granule membrane {ECO:0000250|UniProtKB:P19218}; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:P19218}. Secreted Cell membrane {ECO:0000250|UniProtKB:P19218}; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:P19218}. Apical cell membrane {ECO:0000250|UniProtKB:Q9D733}; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:P19218}. Membrane raft {ECO:0000250|UniProtKB:P19218}; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:P19218}. Endosome {ECO:0000250|UniProtKB:Q9D733}. Note=Secreted, after cleavage, in the pancreatic juice.

Tissue Location
Expressed in pancreas (at protein level) (PubMed:8666297, PubMed:10760606). Specifically expressed by M (microfold) cells which are atypical epithelial cells of the intestine (at protein level) (PubMed:19907495).

Anti-GP2 (Glycoprotein 2) / ZAP75 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture