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Anti-PEPT1 Antibody

Catalog # AP59700

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P46059
Reactivity	Human, Mouse, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	78806

Additional Information

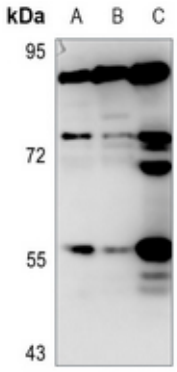
Gene ID	6564
Other Names	PEPT1; Solute carrier family 15 member 1; Intestinal H(+)/peptide cotransporter; Oligopeptide transporter, small intestine isoform; Peptide transporter 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PEPT1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 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

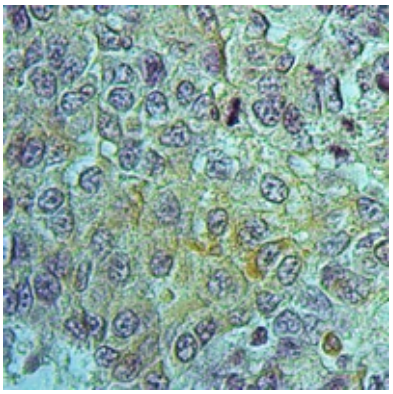
Name	SLC15A1 (HGNC:10920)
Function	Electrogenic proton-coupled amino-acid transporter that transports oligopeptides of 2 to 4 amino acids with a preference for dipeptides. Transports neutral and monovalently charged peptides with a proton to peptide stoichiometry of 1:1 or 2:1 (By similarity) (PubMed:15521010, PubMed:18367661, PubMed:19685173, PubMed:26320580, PubMed:7896779, PubMed:8914574, PubMed:9835627). Primarily responsible for the absorption of dietary di- and tripeptides from the small intestinal lumen (By similarity). Mediates transepithelial transport of muramyl and N-formylated bacterial dipeptides contributing to recognition of pathogenic bacteria by the mucosal immune system (PubMed:15521010, PubMed:9835627).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Note=Localized to the apical membrane of enterocytes

Tissue Location	Expressed in small intestine.

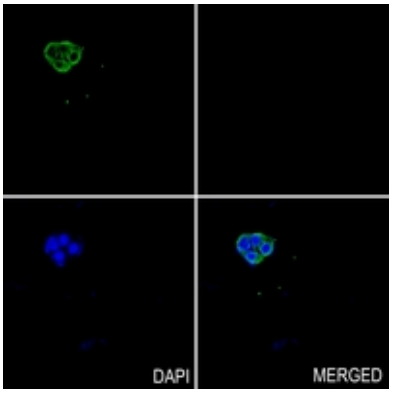
Images



Western blot analysis of PEPT1 expression in HEK293T (A), H1688 (B), H1792 (C) whole cell lysates. (Predicted band size: 78 kD; Observed band size: 79 kD)



Immunohistochemical analysis of PEPT1 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PEPT1 staining in Hela 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).

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