

PEPT2 (I-20): sc-19918

BACKGROUND

In mammalian small intestine, the proton-coupled peptide transporter (PEPT) is responsible for the absorption of small peptides arising from digestion of dietary proteins. PEPT1, a hydrogen ion/peptide co-transporter, transports dipeptides and tripeptides, but not free amino acids or peptides with more than three amino acid residues. The mechanism for this transport requires proton binding and the presence of an inside-negative membrane potential. PEPT1 is 708 amino acid protein that contains 12 putative membrane-spanning domains. PEPT1 seems to play important roles in nutritional and pharmacological therapies. The mammalian kidney expresses a proton-coupled peptide transporter, PEPT2, that is responsible for the absorption of small peptides, as well as β -lactam antibiotics and other peptide-like drugs, from the tubular filtrate.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC15A2 (human) mapping to 3q13.33; Slc15a2 (mouse) mapping to 16 B3.

SOURCE

PEPT2 (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PEPT2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19918 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PEPT2 (I-20) is recommended for detection of PEPT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PEPT2 (I-20) is also recommended for detection of PEPT2 in additional species, including canine.

Suitable for use as control antibody for PEPT2 siRNA (h): sc-42590, PEPT2 siRNA (m): sc-42591, PEPT2 shRNA Plasmid (h): sc-42590-SH, PEPT2 shRNA Plasmid (m): sc-42591-SH, PEPT2 shRNA (h) Lentiviral Particles: sc-42590-V and PEPT2 shRNA (m) Lentiviral Particles: sc-42591-V.

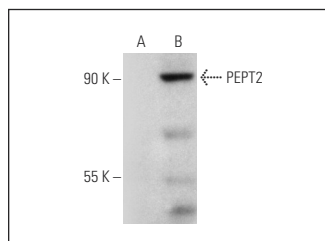
Molecular Weight of PEPT2: 85 kDa.

Positive Controls: mouse PEPT2 transfected CHO whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PEPT2 (I-20): sc-19918. Western blot analysis of PEPT2 expression in non-transfected CHO (A) and mouse PEPT2 transfected CHO (B) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.