

PAT3 (L-12): sc-132769

BACKGROUND

The proton-coupled amino acid transporter family consists of four family members, namely PAT1, PAT2, PAT3 and PAT4, all of which mediate the 1:1 symport of protons and small neutral amino acids and derivatives across both intracellular and plasma membranes. Substrates for the PAT family members include L- and D-Proline, Glycine and L-Alanine, 3-Amino-1-propanesulfonic acid, L-Azetidine-2-carboxylic acid and *cis*-4-Hydroxy-D-proline. PAT1 expression is high in intestine and brain where it localizes to the brush border membrane, thereby allowing PAT1 to serve as a novel route for oral drug delivery. PAT2 shows high expression in spinal cord and brain, while PAT3 expression is found in testis. PAT4 is a multi-pass membrane protein that is expressed as two alternatively spliced isoforms. All four PAT family members contain three conserved histidine residues with His-55 found to be essential for catalytic activity of PAT1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Slc36a3 (mouse) mapping to 11 B1.3.

STORAGE

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

SOURCE

PAT3 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of PAT3 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-132769 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

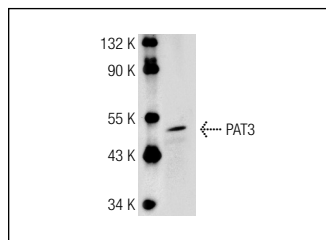
PAT3 (L-12) is recommended for detection of PAT3 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PAT family members.

Suitable for use as control antibody for PAT3 siRNA (m): sc-152033, PAT3 shRNA Plasmid (m): sc-152033-SH and PAT3 shRNA (m) Lentiviral Particles: sc-152033-V.

Molecular Weight of PAT3: 52 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

DATA



PAT3 (L-12): sc-132769. Western blot analysis of PAT3 expression in KNRK whole cell lysate.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.