

PAPST2 (D-14): sc-107920

BACKGROUND

Sulfation is an important post-translational modification of proteoglycans, glycolipids and glycoproteins that requires activity of 3'-phosphoadenosine 5'-phosphosulfate (PAPS), the universal sulfate donor. PAPST2 (adenosine 3'-phospho 5'-phosphosulfate transporter 2), also known as SLC35B3 (solute carrier family 35 member B3) is a 401 amino acid Golgi apparatus protein that is predominantly expressed in human colon. Overexpression of either PAPST1 or PAPST2, both of which are members of the nucleotide-sugar transporter family, leads to increased PAPS transport activity within the colon. Knockdown of PAPST2 mRNA results in significantly reduced levels of siacyl 6-sulfo N-acetylglucosamine epitope and overall sulfate incorporation into cellular proteins. There are three isoforms of PAPST2 that are produced as a result of alternative splicing events.

REFERENCES

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- Bhattacharya, R., et al. 2009. The PAPS transporter PST-1 is required for heparan sulfation and is essential for viability and neural development in *C. elegans*. *J. Cell Sci.* 122: 4492-4504.

CHROMOSOMAL LOCATION

Genetic locus: SLC35B3 (human) mapping to 6p24.3; Slc35b3 (mouse) mapping to 13 A3.3.

SOURCE

PAPST2 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PAPST2 of human origin.

STORAGE

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

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-107920 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PAPST2 (D-14) is recommended for detection of PAPST2 of mouse, rat and human 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 family member PAPST1.

PAPST2 (D-14) is also recommended for detection of PAPST2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PAPST2 siRNA (h): sc-95515, PAPST2 siRNA (m): sc-152018, PAPST2 shRNA Plasmid (h): sc-95515-SH, PAPST2 shRNA Plasmid (m): sc-152018-SH, PAPST2 shRNA (h) Lentiviral Particles: sc-95515-V and PAPST2 shRNA (m) Lentiviral Particles: sc-152018-V.

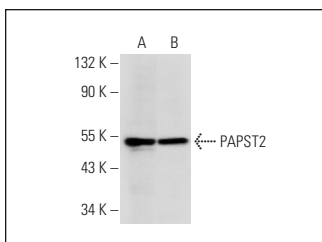
Molecular Weight of PAPST2: 45 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, Caco-2 cell lysate: sc-2262 or MES-SA/D x5 cell lysate: sc-2284.

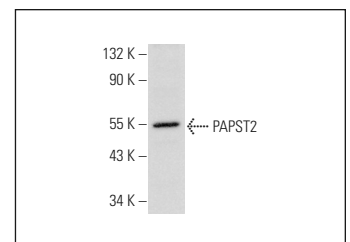
RECOMMENDED SECONDARY REAGENTS

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



PAPST2 (D-14): sc-107920. Western blot analysis of PAPST2 expression in COLO 320DM (A) and Caco-2 (B) whole cell lysates.



PAPST2 (D-14): sc-107920. Western blot analysis of PAPST2 expression in MES-SA/D x5 whole cell lysate.

RESEARCH USE

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