

PAPSS 1 (h): 293 Lysate: sc-111127

BACKGROUND

Bifunctional 3'-phosphoadenosine 5'-phosphosulfate synthetases (PAPS synthetase or PAPSS), also designated sulfurylase kinase (SK), are important for sulfate assimilation in the sulfur metabolism pathway. PAPSS proteins are bifunctional enzymes with APS kinase and ATP sulfurylase activity, which mediate two steps in the sulfate activation pathway. The PAPSS proteins belong to the APS kinase family and to the sulfate adenylyltransferase family of proteins. In mammals, PAPSS proteins are the sole source of sulfate. PAPSS 1, which is involved in biosynthesis of sulfated L-Selectin ligands in endothelial cells, is regulated by chlorate inhibition. It is expressed primarily in pancreas, liver, testis, thymus, kidney, prostate, ovary and small intestine.

REFERENCES

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3. Venkatachalam, K.V., Fuda, H., Koonin, E.V. and Strott, C.A. 1999. Site-selected mutagenesis of a conserved nucleotide binding HXGH motif located in the ATP sulfurylase domain of human bifunctional 3'-phosphoadenosine 5'-phosphosulfate synthase. *J. Biol. Chem.* 274: 2601-2604.
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5. Venkatachalam, K.V. 2003. Human 3'-phosphoadenosine 5'-phosphosulfate (PAPS) synthase: biochemistry, molecular biology and genetic deficiency. *IUBMB Life* 55: 1-11.
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CHROMOSOMAL LOCATION

Genetic locus: PAPSS1 (human) mapping to 4q25.

PRODUCT

PAPSS 1 (h): 293 Lysate represents a lysate of human PAPSS 1 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

PAPSS 1 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive PAPSS 1 antibodies. Recommended use: 10-20 µl per lane.

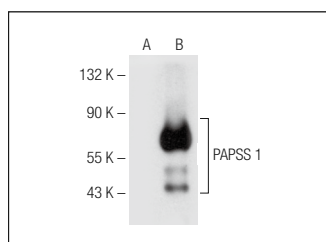
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

PAPSS 1 (A-2): sc-376244 is recommended as a positive control antibody for Western Blot analysis of enhanced human PAPSS 1 expression in PAPSS 1 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

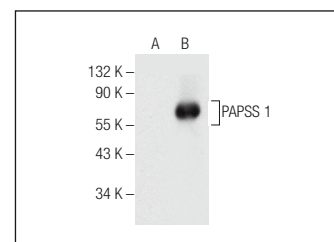
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PAPSS 1 (A-2): sc-376244. Western blot analysis of PAPSS 1 expression in non-transfected: sc-110760 (A) and human PAPSS 1 transfected: sc-111127 (B) 293 whole cell lysates.



PAPSS 1 (A-8): sc-376306. Western blot analysis of PAPSS 1 expression in non-transfected: sc-110760 (A) and human PAPSS 1 transfected: sc-111127 (B) 293 whole cell lysates.

PROTOCOLS

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