10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP2607d

Specification

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession O95340

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 9060

Other Names
Bifunctional 3'-phosphoadenosine 5'-phosphosulfate synthase 2, PAPS synthase 2, PAPSS 2, Sulfurylase kinase 2, SK 2, SK2, Sulfate adenylyltransferase, ATP-sulfurylase, Sulfate adenylate transferase, SAT, Adenylyl-sulfate kinase, 3'-phosphoadenosine-5'-phosphosulfate synthase, APS kinase, Adenosine-5'-phosphosulfate 3'-phosphotransferase, Adenylylsulfate 3'-phosphotransferase, PAPSS2, ATPSK2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2607d was selected from the N-term region of human PAPSS1/PAPSS2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - Protein Information

Name PAPSS2

Synonyms ATPSK2

Function
Bifunctional enzyme with both ATP sulfurylase and APS kinase activity, which mediates two steps in the sulfate activation pathway. The first step is the transfer of a sulfate group to ATP to yield adenosine 5'-phosphosulfate (APS), and the second step is the transfer of a phosphate group from ATP to APS yielding 3'- phosphoadenylylsulfate/PAPS, the activated sulfate donor used by sulfotransferases (PubMed:19474428, PubMed:<a href="http://www.uniprot.org/citations/11773860"

target="_blank">11773860, PubMed:23824674, PubMed:25594860). In mammals, PAPS is the sole source of sulfate while APS appears to only be an intermediate in the sulfate-activation pathway (PubMed:19474428, PubMed:11773860, PubMed:23824674, PubMed:25594860). Plays indirectly an important role in skeletogenesis during postnatal growth (PubMed:9771708).

Tissue Location
Expressed in cartilage and adrenal gland.

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - Images

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - Background

Three-prime-phosphoadenosine 5-prime-phosphosulfate (PAPS) is the sulfate donor cosubstrate for all sulfotransferase (SULT) enzymes. SULTs catalyze the sulfate conjugation of many endogenous and exogenous compounds, including drugs and other xenobiotics. In humans, PAPS is synthesized from adenosine 5-prime triphosphate (ATP) and inorganic sulfate by 2 isoforms, PAPSS1 and PAPSS2.

PAPSS1/PAPSS2 Antibody (N-term) Blocking Peptide - References

Venkatachalam, K.V., IUBMB Life 55(1):1-11 (2003).Xu, Z.H., et al., Biochem. Biophys. Res. Commun. 268(2):437-444 (2000).Venkatachalam, K.V., et al., J. Biol. Chem. 273(30):19311-19320 (1998).ul Haque, M.F., et al., Nat. Genet. 20(2):157-162 (1998).Girard, J.P., et al., FASEB J. 12(7):603-612 (1998).