

PAPSS2b (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2601c**Specification**

PAPSS2b (Center) Blocking Peptide - Product Information

Primary Accession [O95340](#)
Other Accession [NP_001015880](#)

PAPSS2b (Center) 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 [AP2601c](/product/products/AP2601c) was selected from the Center region of human PAPSS2b (Center). 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.

PAPSS2b (Center) 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: <http://www.uniprot.org/citations/19474428>)

target="_blank">19474428, PubMed: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.

PAPSS2b (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PAPSS2b (Center) Blocking Peptide - Images

PAPSS2b (Center) Blocking Peptide - Background

Sulfation is a common modification of endogenous (lipids, proteins, and carbohydrates) and exogenous (xenobiotics and drugs) compounds. In mammals, the sulfate source is 3'-phosphoadenosine 5'-phosphosulfate (PAPS), created from ATP and inorganic sulfate. Two different tissue isoforms encoded by different genes synthesize PAPS, known as PAPSS1 and PAPSS2. Defects in PAPSS2 cause the Pakistani type of spondyloepimetaphyseal dysplasia. Two alternatively spliced transcript variants that encode different isoforms have been described for PAPSS2. PAPSS2b includes an alternate in-frame segment, compared to PAPSS2a, resulting in a longer protein (isoform 2), compared to isoform 1.

PAPSS2b (Center) Blocking Peptide - References

Venkatachalam KV. IUBMB Life. 2003 Jan;55(1):1-11.