Active Recombinant P. chrysogenum APSK Protein, His tagged

Cat. No. APSK-03P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant P. chrysogenum APSK Protein with His tag was expressed in E. coli.
Species	P. chrysogenum
Source	E.coli
ProteinLength	1-211 aa
Description	Sulfur metabolism is essential to all organisms. Inorganic sulfate is sequentially activated by ATP sulfurylase and adenosine 5'-phosphosulfate kinase (APSK). ATP sulfurylase converts ATP to adenosine-5'-phosphosulfate (APS). APSK subsequently phosphorylates APS at the 3' site to generate 3'-phosphoadenosine-5'-phosphosulfate (PAPS). PAPS is the sulfur donor required for all sulfotransferase reactions in humans and is also the sulfur source for synthesis of cysteine, methionine and glutathione. The P. chrysogenum APSK is a homodimer that undergoes a temperature-dependent reversible dissociation into inactive monomers. The kinetic mechanism of this enzyme is strictly ordered with ATP bound before APS and PAPS dissociating before MgADP. APS is reported as a potent substrate inhibitor with the formation of a dead-end E·MgADP·APS ternary complex as the cause of the substrate inhibition. The recombinant P. chrysogenum APSK is required for in vitro PAPS synthesis and the enzymatic activity was measured using a phosphatase-coupled method.

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Molecular Mass	25 kDa
Bio-activity	Measured by its ability to phosphorylate adenosine 5'-phosphosulfate (APS). The specific activity is > 100 pmol/min/μg, as measured under the described conditions, and is subject to known limitations imposed by a factor of coupling rate.
N-terminal Sequence Analysis	Ser2
Endotoxin	< 1 EU/μg by LAL
Purity	> 95% by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue stain at 5 μg per lane.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.
Storage Buffer	Supplied as a 0.2 μm filtered solution in Tris and NaCl.

GENE INFORMATION

Official Symbol	APSK
Synonyms	APSK

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