

Yeast Sulfate adenylyltransferase - Purified

Catalog No.: AR10437PU-L

Quantity: 0.1 kIU

Background: ATP sulphurylase synthesizes adenosine 5'-sulphatophosphate from ATP and inorganic SO_4^{2-} . This is the first reaction of a two step sequence in the formation of "active sulphate", adenosine 3'-phosphate 5'-sulphatophosphate, which is a sulphate donor for a wide variety of compounds and is also involved in the reduction of sulphate.

Uniprot ID: [P08536](#)

NCBI: [NP_012543.1](#)

GeneID: [853466](#)

Species: Yeast

Source: E. coli

Format: **State:** Sterile Filtered White lyophilized (freeze-dried) powder
Buffer System: Lyophilized after dialysis against lyophilized from 10mM NaP buffer, 100mM NaCl, 10mM Lactose, 1% PEG pH 7.5 and 0.75mM DTT.
Reconstitution: Spin vial before opening. Restore ATP sulphurylase with 5mM NaP pH-7.5 and 0.75mM DTT at a concentration ranging from 0.1-1 mg/ml. Can be diluted further into other aqueous buffers. pH range between 7.0-8.5 is best.

Description: Recombinant Yeast Adenosine 5" Triphosphate Sulfurylase produced in *E.coli* is a non-glycosylated, polypeptide chain containing 511 amino acids and having a Molecular weight of 57.7 kDa.

Recombinant Yeast Adenosine 5" Triphosphate Sulfurylase catalyzes the activation of sulfate by transferring Sulfate to the Adenine monophosphate moiety of ATP to form Adenosine 5'-Phosphosulfate (APS) and Pyrophosphate (PPi). The reaction is reversible: ATP is formed from APS and PPi. Adenosine 5 Triphosphate Sulfurylase is purified by proprietary chromatographic techniques.

Unit Definition: One unit produces 1.0 μ mole of ATP from APS and inorganic phosphate per min. at pH 8.0 and 30°C.

AA Sequence:

MPAPHGILQ DLIARDALKK NELLSEAQSS DILVNLTPR QLCDIELILN GGFSPLTGFL NENDYSSVVT
DSRLADGTLW TIPITLDVDE AFANQIKPDT RIALFQDDEI PIAILTVQDV YKPNKTIEAE KVFRGDPEHP
AISYLFNVAG DYYVGGSLA IQLPQHYDYP GLRKTPAQLR LEFQSRQWDR VVAFQTRNPM HRAHRELTVR
AAREANAKVL IHPVVGLTKP GDIDHTRVR VYQELIKRYP NGIAFLSLLP LAMRMSGDRE AVWHAIIRKN
YGASHFIVGR DHAGPGKNSK GVDFYGPYDA QELVESYKHE DIEVVPFRM VTYLPDEDRY APIDQIDTTK
TRTLNISGTE LRRRLRVGGE IPEWFSYPEV VKILRESNPP RPKQGFIVL GNSLTVSREQ LSIALLSTFL
QFGGGRYYKI FEHNNKTELL SLIQDFIGSG SGLIIPNQWE DDKDSVVGKQ NVYLLDTSSS ADIQLESAD
PISHIVQKVV LFLEDNGFFV F.

Biological Activity: 12 Units/mg

Storage:

Prior to reconstitution store at 2-8°C for one month or desiccated below -18°C.

Following reconstitution store undiluted at 2-8°C for one month
or (in aliquots) at -20°C for longer.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.