

SEPHS1 Protein, Human (HEK293, His)

Cat. No.:	HY-P71291
Synonyms:	Selenide; water dikinase 1; Selenium donor protein 1; Selenophosphate synthase 1; SEPHS1; SELD; SPS; SPS1
Species:	Human
Source:	HEK293
Accession:	P49903 (M1-S392)
Gene ID:	22929
Molecular Weight:	Approximately 42.0 kDa

PROPERTIES

AA Sequence	MSTRESFNPE SYELDKSFRL TRFTELKGTG CKVPQDVLQK LLES LQENHF QEDEQFLGAV MPRLGIGMDT CVIPLRHGGL SLVQT TDYIY PIVDDPYMMG RIACANVLS D LYAMGVTECD NMLML LGVSN KMTDRERDKV MPLIIQGFKD A AEEAGTSVT GGQTV LNPWI VLGGVATTVC QPNEFIMPDN AVPGDVLVLT KPLGT QVAVA VHQWLDIPEK WNKIKLVVTQ EDVELAYQEA MMNMARLNRT AAGLMHTFNA HAATDITGFG ILGHAQNLAK QQRNEVSFVI HNLPVLAKMA AVSKACGNMF GLMHGTCPET SGGLLICLP R EQAARFCAEI KSPKYGE GHQ AWIIGIVEKG NRTARIIDKP RII EVAPQVA TQNVNPTPGA TS
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 25 mM Tris-HCl, 100 mM Glycine, 10% Glycerol, pH 7.3.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	The SEPHS1 protein serves as a catalyst in the synthesis of selenophosphate, a crucial step involving the conversion of selenide and ATP. This enzymatic activity demonstrates SEPHS1's pivotal role in selenium metabolism, contributing to the biosynthesis of selenoproteins. By efficiently converting selenide and ATP into selenophosphate, SEPHS1 plays a
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fundamental part in facilitating the incorporation of selenium into the amino acid selenocysteine, a key component of selenoproteins essential for various cellular functions. The precise enzymatic function of SEPHS1 underscores its significance in selenium homeostasis and the synthesis of biologically active selenoproteins.

Caution: Product has not been fully validated for medical applications. For research use only.

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