AHSP Protein, Human

Cat. No.:	HY-P76136
Synonyms:	Alpha-hemoglobin-stabilizing protein; Erythroid-associated factor; AHSP; EDRF; ERAF
Species:	Human
Source:	E. coli
Accession:	Q9NZD4 (M1-S102)
Gene ID:	51327
Molecular Weight:	Approximately 12 kDa

PROPERTIES

AA Sequence	M A L L K A N K D L I S A G L K E F S V L L N Q Q V F N D P L V S E E D M V T V V E D W M N F Y I N Y Y R Q Q V T G E P Q E R D K A L Q E L R Q E L N T L A N P F L A K Y R D F L K S H E L P S H P P P S S
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	AHSP protein serves as a chaperone during normal erythroid cell development, safeguarding alpha-hemoglobin from harmful aggregation by preventing its precipitation. This protective function is crucial for maintaining the stability of free alpha-hemoglobin and is particularly relevant in modulating pathological conditions associated with an excess of alpha-hemoglobin, such as beta-thalassemia. AHSP exists as a monomer and forms a specific heterodimeric complex with free alpha-hemoglobin, exhibiting selectivity as it does not bind to beta-hemoglobin or the alpha(2)beta(2) hemoglobin A complex. This interaction underscores AHSP's role in preventing detrimental interactions and maintaining the proper balance of hemoglobin components during erythropoiesis.

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

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