ATOX1 Protein, Human (His)

Cat. No.:	HY-P75585
Synonyms:	Copper transport protein ATOX1; Metal transport protein ATX1; HAH1
Species:	Human
Source:	E. coli
Accession:	O00244 (M1-E68)
Gene ID:	475
Molecular Weight:	Approximately 9 kDa

PROPERTIES

AA Sequence	M P K H E F S V D M T C G G C A E A V S R V L N K L G G V K Y D I D L P N K K V C I E S E H S M D T L L A T L K K T G K T V S Y L G L E
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	The ATOX1 protein serves a crucial role in cellular copper transport by binding to and delivering cytosolic copper to copper ATPase proteins. This process is integral to cellular antioxidant defense mechanisms. ATOX1 functions as a homodimer, as indicated by research findings (source: PubMed:24837030). Additionally, it interacts with ATP7B (source: PubMed:10966647) and ATP7A (sources: PubMed:21667063, PubMed:19453293). The protein, in its dimer form, also interacts with SLC31A1 via its C-terminal domain, contributing to ATOX1 stability and controlling intracellular Cu(I) levels (sources: PubMed:24837030, PubMed:26745413).

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

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