S100A13 Protein, Mouse (N-His)

Cat. No.:	HY-P76583A
Synonyms:	Protein S100-A13; S100A13; S100 calcium-binding protein A13
Species:	Mouse
Source:	E. coli
Accession:	P97352 (M1-K98)
Gene ID:	20196
Molecular Weight:	Approximately 12 kDa

PROPERTIES

AA Sequence	M A A E T L T E L E A A I E T V V S T F F T F A G R E G R K G S L N I N E F K E L A T Q Q L P H L L K D V G S L D E K M K T L D V N Q D S E L R F S E Y W R L I G E L A K E V R K E K A L G I R K K
Biological Activity	Measured by its ability to enhance the outgrowth of SH-SY5Y cells. The ED_{50} of this effect is 1.075 μg/mL, corresponding to a specific activity is 930.233 units/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 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 S100A13 protein plays a crucial role in the export of proteins that lack a signal peptide and are secreted through an alternative pathway. It has the ability to bind two calcium ions per subunit and one copper ion, with the binding of the latter not interfering with calcium binding. S100A13 is essential for the copper-dependent stress-induced export of IL1A and FGF1. Interestingly, the calcium-free form of the protein can bind to lipid vesicles containing phosphatidylserine but not those containing phosphatidylcholine. S100A13 functions as a homodimer and is part of a copper-dependent multiprotein complex alongside FGF1 and SYT1. It also interacts with FGF1, SYT1, and IL1A.

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

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