DLST Protein, Human (sf9, His)

Cat. No.:	HY-P75709
Synonyms:	2-oxoglutarate dehydrogenase complex component E2; OGDC-E2; E2K; DLST; DLTS
Species:	Human
Source:	Sf9 insect cells
Accession:	P36957 (D68-L453)
Gene ID:	1743
Molecular Weight:	Approximately 43.9 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 300 mM NaCl, pH 7.5, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
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.
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	DLST protein functions as the dihydrolipoamide succinyltransferase (E2) component within the 2-oxoglutarate dehydrogenase complex, a key player in cellular metabolism. This complex catalyzes the conversion of 2-oxoglutarate to succinyl-CoA and CO(2), predominantly operating in the mitochondrion. Notably, a fraction of the 2-oxoglutarate dehydrogenase complex localizes in the nucleus, where DLST is crucial for lysine succinylation of histones. DLST associates with KAT2A on chromatin, providing succinyl-CoA to histone succinyltransferase KAT2A. This dual localization underscores DLST's pivotal role in coordinating metabolic processes within the mitochondria and contributing to epigenetic modifications in the nucleus, highlighting its multifaceted functionality in cellular homeostasis.

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