

COX4NB Protein, Human (His)

Cat. No.:	HY-P77342
Synonyms:	ER membrane protein complex subunit 8; Neighbor of COX4; C16orf2; COX4AL; COX4NB; FAM158B; NOC4
Species:	Human
Source:	E. coli
Accession:	O43402 (M1-C210)
Gene ID:	10328
Molecular Weight:	Approximately 27 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 50 mM Tris, 10% Glycerol, 100 mM Arginine, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
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	<p>COX4NB protein serves as a crucial component of the endoplasmic reticulum membrane protein complex (EMC), facilitating the energy-independent insertion of newly synthesized membrane proteins into endoplasmic reticulum (ER) membranes. It exhibits a preference for accommodating proteins with transmembrane domains characterized by weak hydrophobicity or containing destabilizing features such as charged and aromatic residues. COX4NB is actively involved in both cotranslational and post-translational insertion processes, playing a key role in the cotranslational insertion of multi-pass membrane proteins where stop-transfer membrane-anchor sequences transform into ER membrane-spanning helices. Additionally, it is essential for the post-translational insertion of tail-anchored (TA) proteins into ER membranes. By mediating the proper cotranslational insertion of N-terminal transmembrane domains in an N-exo topology, positioning the translocated N-terminus in the ER lumen, COX4NB controls the topology of multi-pass membrane proteins, including G protein-coupled receptors. Indirectly influencing various cellular processes through its regulatory role in protein membrane insertion, COX4NB is a vital component of the EMC complex, where it functions in conjunction with other subunits like EMC8 and EMC9.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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