

MRPL44 Protein, Human (sf9, His)

Cat. No.:	HY-P77090
Synonyms:	39S ribosomal protein L44, mitochondrial; L44mt; MRP-L44
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9H9J2 (M1-S332)
Gene ID:	65080
Molecular Weight:	Approximately 40 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM, Tris 500 mM NaCl, pH 8.0. 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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/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	MRPL44 is a vital component of the 39S subunit of the mitochondrial ribosome, where it likely plays a role in the assembly and stability of nascent mitochondrial polypeptides as they exit the ribosome. Within the mitochondrial large ribosomal subunit (mt-LSU), MRPL44 contributes to the structural integrity and function of mature mammalian 55S mitochondrial ribosomes, which consist of a small (28S) and a large (39S) subunit. The 28S small subunit harbors a 12S ribosomal RNA (12S mt-rRNA) and 30 distinct proteins, while the 39S large subunit includes a 16S rRNA (16S mt-rRNA) and a copy of mitochondrial valine transfer RNA (mt-tRNA(Val)), which plays a crucial structural role. In total, the 39S large subunit comprises 52 diverse proteins, underscoring MRPL44's essential contribution to mitochondrial ribosome assembly and function.
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Caution: Product has not been fully validated for medical applications. For research use only.

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