

Recombinant Human NDUF54

Cat. No. NDUF54-367H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human NDUF54 produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 134 amino acids (43-175 a.a.) and having a molecular mass of 15.5 kDa. The NDUF54 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Protein Length	43-175 a.a.
Description	NDUF54 is a subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), the primary multi-subunit enzyme complex of the mitochondrial respiratory chain. Complex I is involved in cellular ATP production, the main source of energy for numerous vital processes in living cells. NDUF54 removes electrons from NADH and passes them by a series of diverse protein-coupled redox centers to the electron acceptor ubiquinone. NDUF54 presents a hotspot of mutations in the genetic apparatus of oxidative phosphorylation and the correct assembly of the subunit it encodes is essential for completion of the assembly of complex I.
Amino Acid Sequence	MAQDQTQDTQ LITVDEKLDI TTLTGVPEEH IKTRKVRIFV PARNNMQSGV NNTKKWKMEF DTRERWENPL MGWASTADPL SNMVLTFSTK EDAVSFAEKN GWSYDIEERK VPKPKSKSYG ANFSWNKRTR VSTK.
Physical Appearance	Sterile Filtered colorless solution.

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Formulation	The NDUFS4 solution contains 20mM Tris pH-8 & 30% glycerol.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Stability	NDUFS4 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	NDUFS4 NADH dehydrogenase (ubiquinone) Fe-S protein 4, 18kDa (NADH-coenzyme Q reductase) [Homo sapiens]
Synonyms	NDUFS4; NADH dehydrogenase (ubiquinone) Fe-S protein 4, 18kDa (NADH-coenzyme Q reductase); NADH dehydrogenase (ubiquinone) Fe-S protein 4; NADH dehydrogenase (ubiquinone) iron-sulfur protein 4; NADH-coenzyme Q reductase, 18-KD; NADH-ubiquinone oxidoreductase 18 kDa subunit; mitochondrial respiratory chain complex I (18-KD subunit); AQDQ
Gene ID	4724
mRNA Refseq	NM_002495
Protein Refseq	NP_002486
MIM	602694
UniProt ID	O43181
Chromosome Location	5q11.1

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Pathway	Alzheimer"s disease; Huntington"s disease; Metabolic pathways; Metabolic pathways; Parkinson"s disease; Diabetes pathways; Electron Transport Chain; Integration of energy metabolism
Function	NADH dehydrogenase (ubiquinone) activity; oxidoreductase activity, acting on NADH or NADPH

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