

# Recombinant Human NADH Dehydrogenase (Ubiquinone) 1 Alpha Subcomplex, 5, 13kDa, His-tagged

**Cat. No.** NDUFA5-7194H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b> | Recombinant human NDUFA5 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques. MW: 15.8 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | 1-116aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5, also known as NDUFA5, belongs to the complex I NDUFA5 subunit family. The human NDUFA5 gene codes for the B13 subunit of complex I of the respiratory chain, which transfers electrons from NADH to ubiquinone. The high degree of conservation of NDUFA5 extending to plants and fungi indicates its functional significance in the enzyme complex. The protein localizes to the inner mitochondrial membrane as part of the 7 component-containing, water soluble "iron-sulfur protein" (IP) fraction of complex I, although its specific role is unknown. It is assumed to undergo post-translational removal of the initiator methionine and N-acetylation of the next amino acid. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Mass</b>   | 15.8 kDa (139aa) confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSMAGVLKK TTGLVGLAVC NTPHERLRIL<br>YTKILDVLEE IPKNAAYRKY TEQITNEKLA MVKAEPDVKK LEDQLQGGQL<br>EEVILQAEHE LNLARKMREW KLWEPLVEEP PADQWKWPI                                                                                                                                                                                                                                                                                                                                               |
| <b>Purity</b>           | >90% by SDS - PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Applications</b>     | SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage</b>          | Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                                         |
| <b>Concentration</b>    | 1 mg/ml (determined by Bradford assay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Gene Name</b>        | NDUFA5 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5, 13kDa [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Official Symbol</b>  | NDUFA5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>         | NDUFA5; NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5, 13kDa; NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5 (13kD, B13); NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5; B13; CI 13kB; CI 13KD B; complex I 13kDa subunit B; NADH ubiquinone oxidoreductase 13 kDa B subunit; NUFM; type I dehydrogenase; ubiquinone reductase; UQOR13; Complex I-13KD-B; complex I subunit B13; NADH-ubiquinone oxidoreductase 13 kDa-B subunit; CI-13kB; CI-13KD-B; FLJ12147; DKFZp781K1356; |
| <b>Gene ID</b>          | 4698                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>mRNA Refseq</b>      | NM_005000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protein Refseq</b>      | <a href="#">NP_004991</a>                                                                                                                                                                                                                                                                                                              |
| <b>MIM</b>                 | <a href="#">601677</a>                                                                                                                                                                                                                                                                                                                 |
| <b>UniProt ID</b>          | <a href="#">Q16718</a>                                                                                                                                                                                                                                                                                                                 |
| <b>Chromosome Location</b> | 7q31.33                                                                                                                                                                                                                                                                                                                                |
| <b>Pathway</b>             | Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Electron Transport Chain, organism-specific biosystem; Huntingtons disease, organism-specific biosystem; Huntingtons disease, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; |
| <b>Function</b>            | NADH dehydrogenase (ubiquinone) activity; oxidoreductase activity, acting on NADH or NADPH;                                                                                                                                                                                                                                            |

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