Product Name: Recombinant Human NNT (N-6His)

Catalog #: PEH2423



Summary

Name NNT

Purity Greater than 95% as determined by reducing SDS-PAGE

Endotoxin level <1 EU/µg as determined by LAL test.

Construction Recombinant Human NAD(P) transhydrogenase is produced by our E.coli

expression system and the target gene encoding Met880-Lys1086 is

expressed with a 6His tag at the N-terminus.

Accession # Q13423

Host E.coli

Species Human

Predicted Molecular Mass 24.4 KDa

Formulation Supplied as a 0.2 µm filtered solution of PBS, 10mM GSH, 50% Glycerol, pH7.4.

Shipping The product is shipped on dry ice/polar packs. Upon receipt, store it immediately

at the temperature listed below.

Stability&Storage Store at \leq -70°C, stable for 6 months after receipt. Store at \leq -70°C, stable for 3

months under sterile conditions after opening. Please minimize freeze-thaw

cycles.

Reconstitution 0.00.0

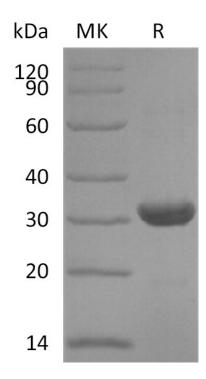
SDS-PAGE image

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Alternative Names

NAD(P) transhydrogenase; NNT

Background

NAD(P)+transhydrogenase (NNT) is located in the inner mitochondrial membrane and catalyzes a reversible hydride transfer between NAD(H) and NADP(H) that is coupled to proton translocation between the intermembrane space and mitochondrial matrix. NNT activity has an essential role in maintaining the NADPH supply for antioxidant defense and biosynthetic pathways. Structurally, NNT is composed of three domains; domains I and III are hydrophilic and have binding sites for NAD and NADP, respectively, while domain II is hydrophobic and is a transmembrane pathway through which protons translocate. NNT forms dimers, whose monomers act in an anti-phase way; domain III (NADP(H)- binding) flips, allowing proton translocation across the inner mitochondrial membrane one moment and favoring hydride transfer between NAD(H) and NADP(H) the next. And NNT pathophysiological roles after the discovery of a spontaneous Nnt mutation in C57BL/6J mice. And Nnt silencing reduced the growth of cancer cell lines, suggesting that NNT might be a therapeutic target in some cancers.

Note

For Research Use Only, Not for Diagnostic Use.