

Summary

Name	NNT
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/ μ g 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



Background

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

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