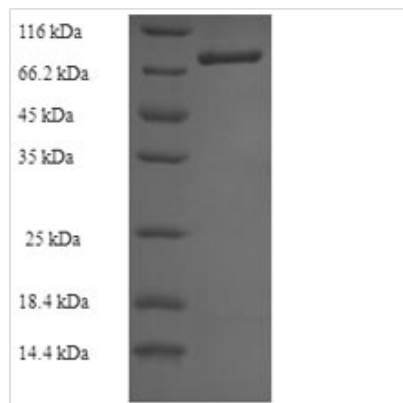




Recombinant Human Thioredoxin reductase 2, mitochondrial (TXNRD2) (U523S)

Product Code	CSB-EP885675HU
Relevance	Maintains thioredoxin in a reduced state. Implicated in the defenses against oxidative stress. May play a role in redox-regulated cell signaling.
Abbreviation	Recombinant Human TXNRD2 protein (U523S)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9NNW7
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	QRDYDLLVGGGSGGLACAKEAAQLGRKVAVVDYVEPSPQGTRWGLGGTCV NVGCIPKKLMHQAALLGGLIQDAPNYGWEVAQPVPDWRKMAEAVQNHVKS LNWGHVRVQLQDRKVKYFNIKASFVDEHTVCGVAKGGKEILLSADHIIIATGGRP RYPHTHIEGALEYGITSDDIFWLKESPGKTLVVGASYVALECAGFLTIGILDTTIM MRSIPLRGFDQQMSSMVEIHMASHGTRFLRGCAPSRVRRLPDGGQLQVTWED STTGKEDTGTFTDLWAIGRVPDTRSLNLEKAGVDTSPDTQKILVDSREATSV PHIYAIGDVVEGRPELTPIAIMAGRLLVQRLFGGSSDLMDYDNVPTTVFTPLEY GCVGLSEEEAVARHGQEHVEVYHAHYKPLEFTVAGRDASQCYVKMVCLREP PQLVLGLHFLGPNAGEVTQGFALGIKCGASYAQVMRTVGIHPTCSEEVVKLRIS KRSGLDPTVTGCSG
Research Area	Others
Source	E.coli
Target Names	TXNRD2
Expression Region	37-524aa(U523S)
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	68.9kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Amino acids 37-524 constitute the expression domain of recombinant Human TXNRD2. The expected molecular weight for the TXNRD2 protein is calculated to be 68.9 kDa. This TXNRD2 recombinant protein is manufactured in e.coli. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of TXNRD2, making it easier to detect and purify the TXNRD2 recombinant protein in the later stages of expression and purification.

The human thioredoxin reductase 2, mitochondrial (TXNRD2) is an enzyme primarily localized in the mitochondria. TXNRD2 plays a crucial role in cellular redox homeostasis by catalyzing the reduction of thioredoxin, a key regulator of cellular redox status. This process is essential for maintaining the proper function of various cellular proteins and protecting cells from oxidative damage. Additionally, TXNRD2 contributes to the regulation of apoptosis and participates in DNA synthesis. Dysregulation of TXNRD2 has been implicated in various diseases, including cancer and neurodegenerative disorders. Research on TXNRD2 focuses on understanding its functions in cellular redox signaling, its role in health and disease, and its potential as a therapeutic target.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.