

Product datasheet

Recombinant Human TXNRD1 (mutated C498) protein
ab82727

1 Image

Description

Product name	Recombinant Human TXNRD1 (mutated C498) protein
Purity	> 95 % SDS-PAGE.
Expression system	Escherichia coli
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	55 kDa including tags
Amino acids	1 to 498
Modifications	mutated C498
Additional sequence information	There is an additional 3 amino acids-GSH at N-terminal. The cysteine at aa498 is mutated to selenocysteine.

Specifications

Our [Abpromise guarantee](#) covers the use of **ab82727** in the following tested applications.

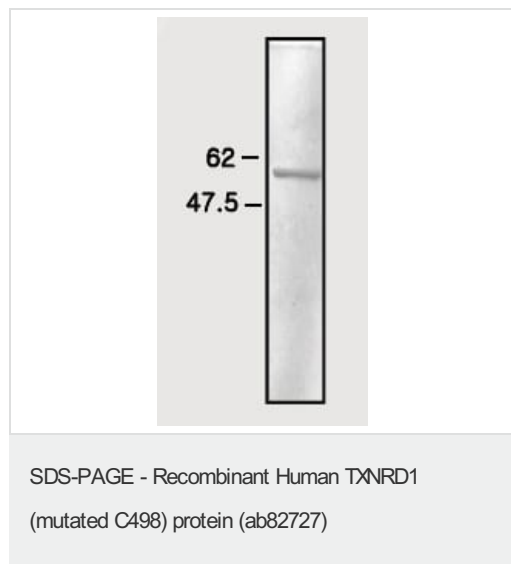
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilized
Additional notes	<p>The mammalian thioredoxin reductases (TrxRs) are a family of selenocysteine containing pyridine nucleotide-disulfide oxido-reductases. All the mammalian TrxRs are homologous to glutathione reductase with respect to primary structure including the conserved redox catalytic site (-Cys-Val-Asn-Val-Gly-Cys-) but distinctively with a C-terminal extension containing a catalytically active penultimate selenocysteine (SeCys) residue in the conserved sequence(-Gly-Cys-SeCys-Gly).</p>

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. Constituents: 0.476% HEPES, 0.0292% EDTA
Reconstitution	Reconstitute in 20mM HEPES, pH 7.0, Packaging size : 0.5 mg
General Info	
Function	Isoform 1 may possess glutaredoxin activity as well as thioredoxin reductase activity and induces actin and tubulin polymerization, leading to formation of cell membrane protrusions. Isoform 4 enhances the transcriptional activity of estrogen receptors alpha and beta while isoform 5 enhances the transcriptional activity of the beta receptor only. Isoform 5 also mediates cell death induced by a combination of interferon-beta and retinoic acid.
Tissue specificity	Isoform 1 is expressed predominantly in Leydig cells (at protein level). Also expressed in ovary, spleen, heart, liver, kidney and pancreas and in a number of cancer cell lines. Isoform 4 is widely expressed with highest levels in kidney, testis, uterus, ovary, prostate, placenta and fetal liver.
Sequence similarities	Belongs to the class-I pyridine nucleotide-disulfide oxidoreductase family. Contains 1 glutaredoxin domain.
Domain	The N-terminal glutaredoxin domain found in isoform 1 does not contain the C-P-Y-C redox-active motif normally found in glutaredoxins and has been found to be inactive in classical glutaredoxin assays.
Post-translational modifications	The N-terminus of isoform 5 is blocked. ISGylated.
Cellular localization	Cytoplasm and Cytoplasm. Nucleus.

Images



ab82727 at 1µg on SDS-PAGE.

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