

TXNRD1 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP12022a**Specification**

TXNRD1 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [Q16881](#)**TXNRD1 Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 7296**Other Names**

Thioredoxin reductase 1, cytoplasmic, TR, Gene associated with retinoic and interferon-induced mortality 12 protein, GRIM-12, Gene associated with retinoic and IFN-induced mortality 12 protein, KM-102-derived reductase-like factor, Thioredoxin reductase TR1, TXNRD1, GRIM12, KDRF

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TXNRD1 Antibody (N-term) Blocking peptide - Protein Information**Name** TXNRD1 ([HGNC:12437](#))**Synonyms** GRIM12, KDRF**Function**

Reduces disulfideprotein thioredoxin (Trx) to its dithiol- containing form (PubMed:8577704). Homodimeric flavoprotein involved in the regulation of cellular redox reactions, growth and differentiation. Contains a selenocysteine residue at the C-terminal active site that is essential for catalysis (Probable). Also has reductase activity on hydrogen peroxide (H2O2) (PubMed:10849437).

Cellular Location

[Isoform 1]: Cytoplasm [Isoform 5]: Cytoplasm

Tissue Location

[Isoform 1]: 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

TXNRD1 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

TXNRD1 Antibody (N-term) Blocking peptide - Images

TXNRD1 Antibody (N-term) Blocking peptide - Background

This gene encodes a member of the family of pyridinenucleotide oxidoreductases. This protein reduces thioredoxins as well as other substrates, and plays a role in selenium metabolism and protection against oxidative stress. The functional enzyme is thought to be a homodimer which uses FAD as a cofactor. Each subunit contains a selenocysteine (Sec) residue which is required for catalytic activity. The selenocysteine is encoded by the UGA codon that normally signals translation termination. The 3' UTR of selenocysteine-containing genes have a common stem-loop structure, the sec insertion sequence (SECIS), that is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. Alternative splicing results in several transcript variants encoding the same or different isoforms.

TXNRD1 Antibody (N-term) Blocking peptide - References

Turanov, A.A., et al. Biochem. J. 430(2):285-293(2010) Javvadi, P., et al. Cancer Res. 70(5):1941-1950(2010) Engstrom, K.S., et al. Mutat. Res. 683 (1-2), 98-105 (2010) :Cadenas, C., et al. Breast Cancer Res. 12 (3), R44 (2010) :Volonte, D., et al. EMBO Rep. 10(12):1334-1340(2009)