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# TXNRD1 Blocking Peptide (Center)

**Synthetic peptide**
**Catalog # BP22147c**

## Specification

### TXNRD1 Blocking Peptide (Center) - Product Information

| | |
|---|---|
| Primary Accession | Q16881 |
| Other Accession | O62768, Q9MYY8, Q5NVA2 |

### TXNRD1 Blocking Peptide (Center) - Additional Information

**Gene ID** 7296

**Other Names**
Thioredoxin reductase 1, cytoplasmic, TR, 1.8.1.9, 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

**Target/Specificity**
The synthetic peptide sequence is selected from aa 291-305 of HUMAN TXNRD1

**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 Blocking Peptide (Center) - Protein Information

**Name** TXNRD1 (HGNC:12437)

**Synonyms** GRIM12, KDRF

**Function**
Reduces disulfideprotein thioredoxin (Trx) to its dithiol- containing form (PubMed:<a href="http://www.uniprot.org/citations/8577704" target="_blank">8577704</a>). 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:<a href="http://www.uniprot.org/citations/10849437" target="_blank">10849437</a>).

**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 Blocking Peptide (Center) - Protocols

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

- Blocking Peptides

## TXNRD1 Blocking Peptide (Center) - Images

## TXNRD1 Blocking Peptide (Center) - Background

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.

## TXNRD1 Blocking Peptide (Center) - References

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Hofman E.R.,et al.Mol. Cell. Biol. 18:6493-6504(1998).
Rundloef A.-K.,et al.Free Radic. Biol. Med. 36:641-656(2004).
Schuetze N.,et al.Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.