

Goat Anti-Thioredoxin Reductase 1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2084a**Specification**

Goat Anti-Thioredoxin Reductase 1 Antibody - Product Information

Application	WB
Primary Accession	Q16881
Other Accession	NP_001087240 , 7296
Reactivity	Human
Predicted	Pig
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	70906

Goat Anti-Thioredoxin Reductase 1 Antibody - 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

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-Thioredoxin Reductase 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Thioredoxin Reductase 1 Antibody - Protein Information**Name** TXNRD1 ([HGNC:12437](#))**Synonyms** GRIM12, KDRF**Function**

Reduces disulfideprotein thioredoxin (Trx) to its dithiol- containing form (PubMed:<a

[8577704](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

Goat Anti-Thioredoxin Reductase 1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-Thioredoxin Reductase 1 Antibody - Images



AF2084a staining (0.1 µg/ml) of Human Placenta lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-Thioredoxin Reductase 1 Antibody - Background

This gene encodes a member of the family of pyridine nucleotide 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.

Goat Anti-Thioredoxin Reductase 1 Antibody - References

Mammalian thioredoxin reductase 1: roles in redox homoeostasis and characterization of cellular targets. Turanov AA, et al. Biochem J, 2010 Sep 1. PMID 20536427.

Thioredoxin reductase-1 mediates curcumin-induced radiosensitization of squamous carcinoma cells. Javvadi P, et al. Cancer Res, 2010 Mar 1. PMID 20160040.

Low 8-oxo-7,8-dihydro-2'-deoxyguanosine levels and influence of genetic background in an Andean population exposed to high levels of arsenic. Engström KS, et al. Mutat Res, 2010 Jan 5. PMID 19896490.

Inhibition of thioredoxin reductase 1 by caveolin 1 promotes stress-induced premature senescence. Volonte D, et al. EMBO Rep, 2009 Dec. PMID 19820694.

High levels of thioredoxin reductase 1 modulate drug-specific cytotoxic efficacy. Eriksson SE, et al. Free Radic Biol Med, 2009 Dec 1. PMID 19766715.