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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

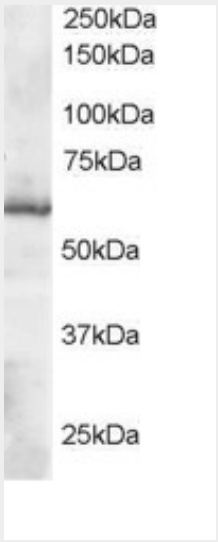
Gene ID 7296

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.



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.

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Goat Anti-Thioredoxin Reductase 1 Antibody - Protein Information

Name TXNRD1

Synonyms GRIM12, KDRF

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.

Cellular Location
Cytoplasm. [Isoform 5]: Cytoplasm.

Tissue Location
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

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 Cytomety
- Cell Culture

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. Engstr□m 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.