



TRXR1 Polyclonal Antibody

Catalog No	YP-Ab-07663
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB;ELISA
Gene Name	TXNRD1 GRIM12 KDRF
Immunogen	Synthesized peptide derived from part region of human protein AA range: 268-318
Specificity	TRXR1 Polyclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000 ELISA 1:5000-20000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	GRIM-12;TR;TR1;TRXR1;TXNR;TXNR1;TRXR1_BOVIN;TXNRD1;Peroxidase TXNRD1;Thioredoxin reductase TR1;1.8.1.9;TRXR1_HUMAN;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;GRIM12;KDRF;TRXR1_MOUSE;TRXR1_RAT;NADPH-dependent thioredoxin reductase;thioredoxin reductase 1;selenoprotein TXNRD1;TXNRD1 GRIM12 KDRF;cytoplasmic (TR) (EC 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
Observed Band	58 kDa
Calculated Molecular Weight	71 kDa
Cell Pathway	[Isoform 1]: Cytoplasm .; [Isoform 4]: Cytoplasm . Nucleus .; [Isoform 5]: Cytoplasm .
Tissue Specificity	[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. ; [Isoform 4]: Widely expressed with highest levels in kidney, testis, uterus, ovary, prostate, placenta and fetal liver.



Function

catalytic activity:Thioredoxin + NADP(+) = thioredoxin disulfide + NADPH., cofactor:Binds 1 FAD per subunit.,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.,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.,induction:Isoform 5 is induced by a combination of interferon-beta and retinoic acid (at protein level). Isoform 1 is induced b

Background

thioredoxin reductase 1(TXNRD1) Homo sapiens 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. [provided by RefSeq, Jul 2008],

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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