ARG57177
anti-Thioredoxin Reductase 1 antibody [30F1]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [30F1] recognizes Thioredoxin Reductase 1
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Clone	30F1
Isotype	IgG2b, kappa
Target Name	Thioredoxin Reductase 1
Species	Human
Immunogen	Recombinant fragment around aa. 161-647 of Human Thioredoxin Reductase 1
Conjugation	Un-conjugated
Alternate Names	Thioredoxin reductase 1, cytoplasmic; EC 1.8.1.9; Gene associated with retinoic and IFN-induced mortality 12 protein; Gene associated with retinoic and interferon-induced mortality 12 protein; TR; TXNR; TRXR1; KM-102-derived reductase-like factor; TR1; GRIM-12; Thioredoxin reductase TR1

Application Instructions

Application table

Application	Dilution
ICC/IF	Assay-dependent
WB	Assay-dependent

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

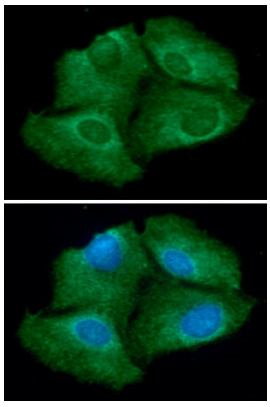
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS (pH 7.4), 0.02% Sodium azide and 10% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	10% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 7296 Human Swiss-port # Q16881 Human
Gene Symbol	TXNRD1
Gene Full Name	thioredoxin reductase 1
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. [provided by RefSeq, Jul 2008]
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. [UniProt]
Calculated Mw	71 kDa
PTM	The N-terminus of isoform 5 is blocked. ISGylated.

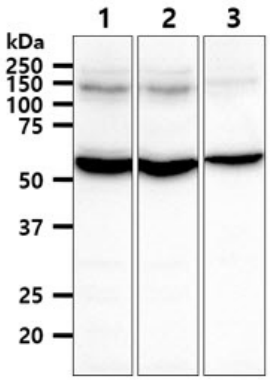
Images



ARG57177 anti-Thioredoxin Reductase 1 antibody [30F1] ICC/IF image

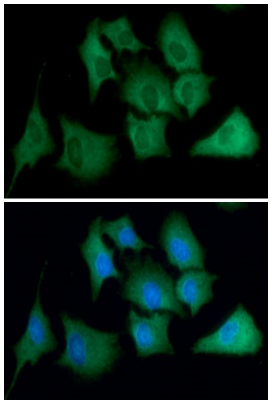
Immunofluorescence: Hep3B cells line stained with ARG57177 anti-Thioredoxin Reductase 1 antibody [30F1] at 1:100 (Green).

DAPI (Blue) for nucleus staining.



ARG57177 anti-Thioredoxin Reductase 1 antibody [30F1] WB image

Western blot: 40 µg of 1) HeLa, 2) A549, and 3) PC3 cell lysates stained with ARG57177 anti-Thioredoxin Reductase 1 antibody [30F1] at 1:1000.



ARG57177 anti-Thioredoxin Reductase 1 antibody [30F1] ICC/IF image

Immunofluorescence: A549 cells line stained with ARG57177 anti-Thioredoxin Reductase 1 antibody [30F1] at 1:100 (Green).

DAPI (Blue) for nucleus staining.