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Thioredoxin / TRX Rabbit mAb

Catalog # AP74806

Product Information

Application	WB, IHC-P, IP
Primary Accession	P10599
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	11737

Additional Information

Gene ID	7295
Other Names	TXN
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A IP~~1:10-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

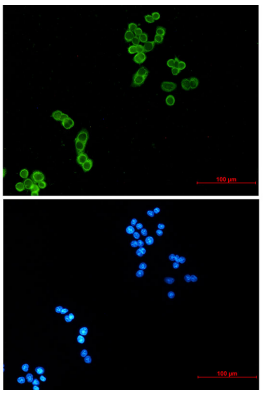
Name	TXN
Synonyms	TRDX, TRX, TRX1
Function	Participates in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyzes dithiol-disulfide exchange reactions (PubMed:17182577, PubMed:19032234, PubMed:2176490). Plays a role in the reversible S- nitrosylation of cysteine residues in target proteins, and thereby contributes to the response to intracellular nitric oxide. Nitrosylates the active site Cys of CASP3 in response to nitric oxide (NO), and thereby inhibits caspase-3 activity (PubMed:16408020, PubMed:17606900). Induces the FOS/JUN AP-1 DNA-binding activity in ionizing radiation (IR) cells through its oxidation/reduction status and stimulates AP-1 transcriptional activity (PubMed:11118054, PubMed:9108029).
Cellular Location	Nucleus. Cytoplasm. Secreted Note=Translocates from the cytoplasm into the nucleus after phorbol 12- myristate 13-acetate induction (PMA)

(PubMed:9108029). Predominantly in the cytoplasm in non irradiated cells (PubMed:11118054). Radiation induces translocation of TRX from the cytoplasm to the nucleus (PubMed:11118054). Secreted by a leaderless secretory pathway (PubMed:1332947).

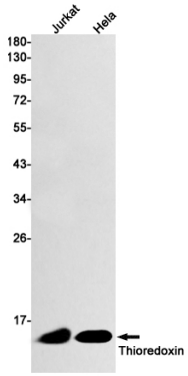
Background

Thioredoxin (Trx) is a redox protein that is found in several species, such as bacteria, plants and mammals, and contains a conserved active site, consisting of Trp-Cys-Gly-Pro-Cys. Participates in many cellular processes including redox signaling, response to oxidative stress, and protein reduction

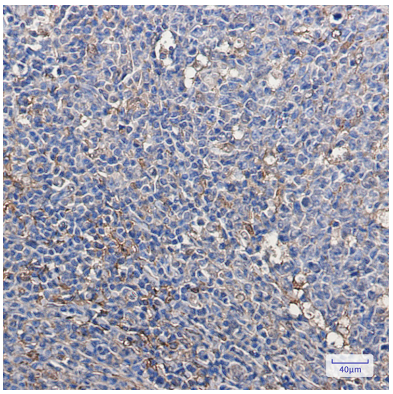
Images



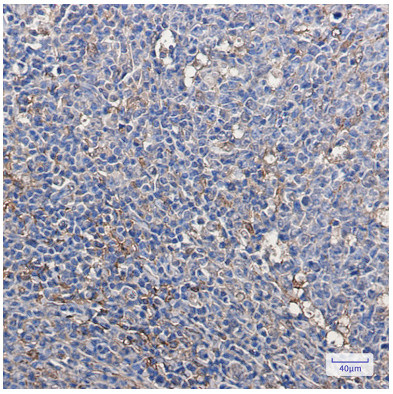
Immunocytochemistry analysis of Thioredoxin (green) in Hela using Thioredoxin antibody,and DAPI(blue).



Western blot analysis of Thioredoxin in Jurkat, Hela lysates using Thioredoxin antibody.



Immunohistochemistry analysis of paraffin-embedded Human tonsil using Thioredoxin/TRX antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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