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TXN Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20358b

Product Information

Application	WB, IHC-P, E
Primary Accession	P10599
Other Accession	P11232, P08628, P82460, P10639, O97680
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Mouse, Pig, Rabbit, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	11737
Antigen Region	66-94

Additional Information

Gene ID	7295
Other Names	Thioredoxin, Trx, ATL-derived factor, ADF, Surface-associated sulphydryl protein, SASP, TXN, TRDX, TRX, TRX1
Target/Specificity	This TXN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 66-94 amino acids from the C-terminal region of human TXN.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TXN Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

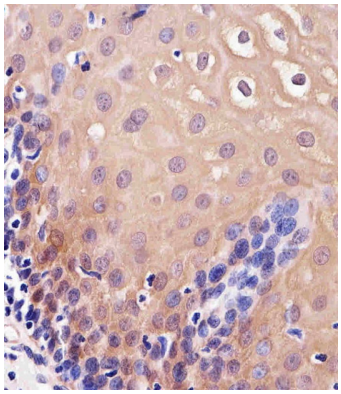
Cellular Location

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).

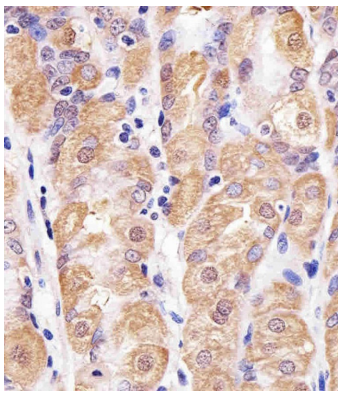
Background

Participates in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyzes dithiol-disulfide exchange reactions. 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. 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. ADF augments the expression of the interleukin-2 receptor TAC (IL2R/P55).

Images

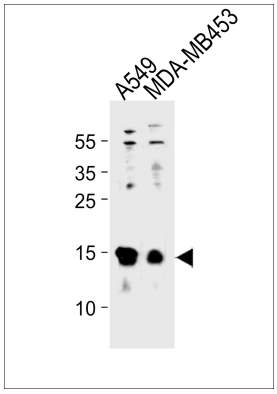


Immunohistochemical analysis of paraffin-embedded H. esophagus section using TXN Antibody (C-term)(Cat#AP20358b). AP20358b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded H. stomach section using TXN Antibody (C-term)(Cat#AP20358b). AP20358b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

TXN Antibody (C-term) (Cat. #AP20358b) western blot analysis in A549,MDA-MB453 cell line lysates (35ug/lane).This demonstrates the TXN antibody detected



the TXN protein (arrow).

Citations

- The Antimetastatic Effect and Underlying Mechanisms of Thioredoxin Reductase Inhibitor Ethaselen.
- Butaselen prevents hepatocarcinogenesis and progression through inhibiting thioredoxin reductase activity.