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TXN Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8661b

Product Information

Application	WB, E
Primary Accession	P10599
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1850CT339.14.1
Calculated MW	11737

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 antibody is generated from a mouse immunized with a recombinant protein from human.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
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 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).

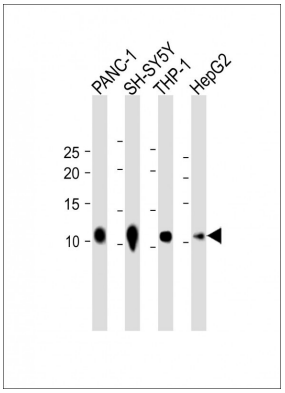
Background

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.

References

Wollman E.E.,et al.J. Biol. Chem. 263:15506-15512(1988).
Tagaya Y.,et al.EMBO J. 8:757-764(1989).
Tonissen K.F.,et al.Gene 102:221-228(1991).
Reddy P.G.,et al.Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
Liu A.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

Images



All lanes: Anti-TXN at 1:1000 dilution Lane 1: PANC-1 whole cell lysate Lane 2: SH-SY5Y whole cell lysate Lane 3: THP-1 whole cell lysate Lane 4: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed band size: 12 KDa Blocking/Dilution buffer: 5% NFDM/TBST.