10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Thioredoxin (TRX) Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1101a

Specification

Thioredoxin (TRX) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P10599
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**12kDa KDa**

Description
Thioredoxin (TRX) is a small ubiquitous protein (MW12kDa) which is exist in a wide variety of prokaryotic and eukaryotic cells. Trx contains a redox active disulfide/dithiol group within the conserved Cys-Gly-Pro-Cys active site. This antibody is suitable for detecting fusion proteins which encode a Trx-Tag by immunoblotting and immunoprecipitation. The Monoclonal Antibody can detect a little Trx-Tag fusion proteins with negligible cross-reactivity with bacterial, insect, or mammalian lysates.

Immunogen
Purified recombinant fusion protein with Thioredoxin (TRX) tag.

Formulation
Ascitic fluid containing 0.03% sodium azide.

Thioredoxin (TRX) Antibody - Additional Information

Gene ID 7295

Dilution
WB~~1/500 - 1/2000
IHC~~1:200~~1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Thioredoxin (TRX) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Thioredoxin (TRX) Antibody - 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).

Thioredoxin (TRX) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Thioredoxin (TRX) Antibody - Images

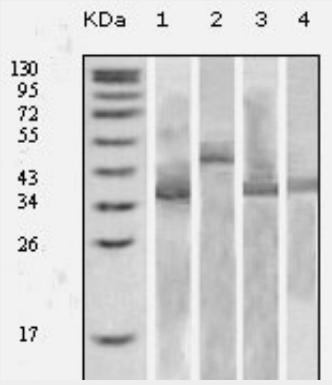

Figure 1: Western blot analysis using Trx mouse mAb against various fusion protein with Trx tag.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

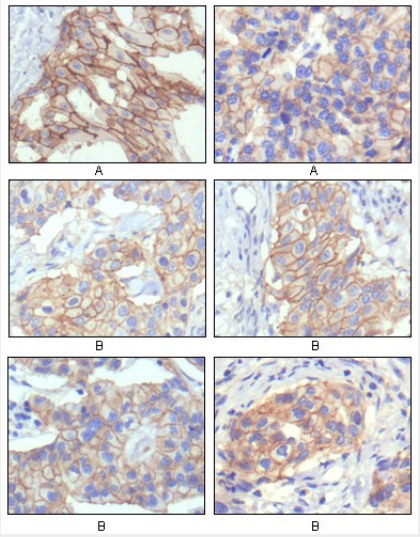

Figure 2: Immunohistochemical analysis of paraffin-embedded human breast intraductal carcinama tissue(A) and breast infiltrating ductal carcinama tissue(B) showing membrane localization using HER-2 mouse mAb with DAB staining.

Thioredoxin (TRX) Antibody - References

1. Holmgen, A. et al., Annu. Rev. Biochem. 54, 237-271 (1985). 2. Wollman, E. E. et al., J. Biol. Chem. 263, 15506-15512 (1988). 3. Sasada, T. et al., J. Toxicol. Sci. 21, 285-287 (1996).