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Rabbit Anti-Thioredoxin/Cy5 Conjugated antibody

SL0458R-Cy5

Product Name	Anti-Thioredoxin/Cy5
Chinese Name	Cy5 标记的硫氧还蛋白抗体
Alias	ADF; Surface associated sulphydryl protein; Thioredoxin-1; Thioredoxin 1; Thioredoxin1; TXN protein; ADF; ATL derived factor; DKFZp686B1993; MGC61975; SASP; Surface associated sulphydryl protein; Surface-associated sulphydryl protein; Thioredoxin; TRDX; TRX 1; TRX; TRX1; TXN; TXN; ATL derived factor; ATL-derived factor; THIO_HUMAN; zgc:92903.
Research Area	Tumour Cell biology immunology Signal transduction transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat
Applications	IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	12kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Thioredoxin (65-105aa)
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:**

The protein encoded by this gene acts as a homodimer and is involved in many redox reactions. The encoded protein is active in the reversible S-nitrosylation of cysteines in certain proteins, which is part of the response to intracellular nitric oxide. This protein is found in the cytoplasm. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]

Function:
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.

Subunit:
Homodimer; disulfide-linked. Interacts with TXNIP through the redox-active site. Interacts with MAP3K5 and CASP3. In case of infection, interacts with S.typhimurium protein slrP. Interacts with APEX1; the interaction stimulates the FOS/JUN AP-1 DNA-binding activity in a redox-dependent manner.

Subcellular Location:
Nucleus. Cytoplasm. Secreted. Note=Secreted by a leaderless secretory pathway. Predominantly in the cytoplasm in non irradiated cells. Radiation induces translocation of TRX from the cytoplasm to the nucleus.

Similarity:
Belongs to the thioredoxin family. Contains 1 thioredoxin domain.

Database links:

Entrez Gene: 7295 Human

Entrez Gene: 22166 Mouse

Entrez Gene: 116484 Rat

Omim: 187700 Human

SwissProt: P10599 Human

SwissProt: P10639 Mouse

SwissProt: P11232 Rat

Unigene: 435136 Human

Unigene: 260618 Mouse

Unigene: 29777 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

硫氧还蛋白(Thioredoxin，Trx)是一类广泛存在于生物体内的多功能酸性蛋白，分子量约 12kDa，是一种小分子含硒蛋白质,参与细胞的一系列生化反应，包括酶活性的调节、转录因子的调控等，是重要的酶活力调节蛋白。
硫氧还蛋白的功能绝大多数是依赖于硫氧还蛋白还原靶蛋白中的二硫键。所有硫氧还蛋白均有一个保守的活性中心，
Trp-Cys-Gly(Ala)-Pro-Cys，活性中心有两个具有氧还活性的半胱氨酸残基。