



Rabbit Anti-Thioredoxin 2 antibody

SL4256R

Product Name:	Thioredoxin 2
Chinese Name:	Mitochondrion硫氧还蛋白2抗体
Alias:	mitochondrial thioredoxin; MT-TRX; MTRX; thioredoxin 2 precursor; Thioredoxin mitochondrial; Thioredoxin2; TRX 2; TRX2; TXN 2; TXN2; THIOM_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	12kDa
Cellular localization:	cytoplasmicMitochondrion
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Thioredoxin 2:101-166/166
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% 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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Thioredoxins (Trx) are small, multi-functional proteins with oxidoreductase activity and are ubiquitous in essentially all living cells. Trx contains a redox-active disulfide/dithiol group within the conserved Cys-Gly-Pro-Cys active site. The two cysteine residues in the conserved active centers can be oxidized to form intramolecular disulfide bonds. Reduction of the active site disulfide in oxidized Trx is catalyzed by Trx reductase with NADPH as the electron donor. The reduced Trx is a hydrogen donor for ribonucleotide

reductase, the essential enzyme for DNA synthesis, and a potent general protein disulfide reductase with numerous functions in growth and redox regulations. Specific protein disulfide targets for reduction by Trx include protein disulfide isomerase(PDI) and a number of transcription factors such as p53, NF-kB and AP-1. Trx is also capable of removing H₂O₂, particularly when it is coupled with either methionine sulfoxide reductase or several isoforms of peroxiredoxins.

Function:

Has an anti-apoptotic function and plays an important role in the regulation of mitochondrial membrane potential. Could be involved in the resistance to anti-tumor agents. Possesses a dithiol-reducing activity.

Subunit:

Monomer.

Subcellular Location:

Mitochondrion.

Tissue Specificity:

Widely expressed in adult (at protein level) and fetal tissues.

Similarity:

Belongs to the thioredoxin family.
Contains 1 thioredoxin domain.

SWISS:

Q99757

Gene ID:

25828

Database links:

[Entrez Gene: 25828](#)Human

[Entrez Gene: 56551](#)Mouse

[Entrez Gene: 79462](#)Rat

[Omim: 609063](#)Human

[SwissProt: Q99757](#)Human

[SwissProt: P97493](#)Mouse

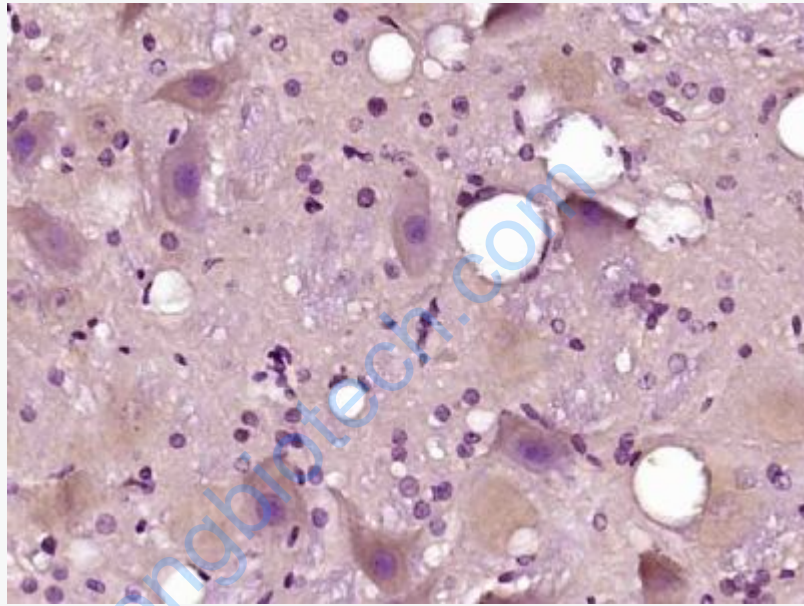
[SwissProt: P97615](#)Rat

[Unigene: 211929](#)Human

[Unigene: 55043](#)Rat

Important Note:

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



Picture:

Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Thioredoxin 2) Polyclonal Antibody, Unconjugated (SL4256R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.