bs-4256R **[Primary Antibody]**

Thioredoxin 2 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 25828 **SWISS:** Q99757

Target: Thioredoxin 2

Immunogen: KLH conjugated synthetic peptide derived from human Thioredoxin 2: 101-166/166.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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.

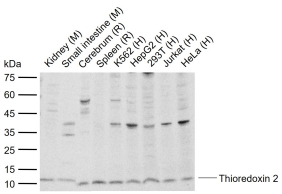
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Cow, Dog)

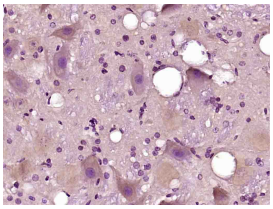
Predicted MW.: 12 kDa

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Sample: Lane 1: Mouse Kidney tissue lysates Lane 2: Mouse Small intestine tissue lysates Lane 3: Rat Cerebrum tissue lysates Lane 4: Rat Spleen tissue lysates Lane 5: Human K562 cell lysates Lane 6: Human HepG2 cell lysates Lane 7: Human 293T cell lysates Lane 8: Human Jurkat cell lysates Lane 9: Human HeLa cell lysates Primary: Anti-Thioredoxin 2 (bs-4256R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 12 kDa Observed band size: 12 kDa



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 (bs-4256R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=13.6]** Gaolong Zhong. et al. Mitochondrial miR-12294-5p regulated copper-induced mitochondrial oxidative stress and mitochondrial quality control imbalance by targeted inhibition of CISD1 in chicken livers. J HAZARD MATER. 2023

Sep;458:131908 WB ;Chicken. 37364438

- **[IF=3.5]** Xue Hao. et al. Thioredoxin-2 (TXN2) suppresses hydrogen peroxide-activated nuclear factor kappa B signaling via alleviating oxidative stress in bovine adipocytes. J DAIRY SCI. 2024 Jan;: WB ;Bovine. 38246558