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Anti-TXNRD2 Antibody
Catalog # ABO11207

Specification

Anti-TXNRD2 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q9NNW7
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Thioredoxin reductase 2, mitochondrial(TXNRD2) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-TXNRD2 Antibody - Additional Information

Gene ID 10587

Other Names
Thioredoxin reductase 2, mitochondrial, 1.8.1.9, Selenoprotein Z, SelZ, TR-beta, Thioredoxin reductase TR3, TXNRD2, KIAA1652, TRXR2

Calculated MW
56507 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Mitochondrion .

Tissue Specificity
Highly expressed in the prostate, ovary, liver, testis, uterus, colon and small intestine. Intermediate levels in brain, skeletal muscle, heart and spleen. Low levels in placenta, pancreas, thymus and peripheral blood leukocytes. According to PubMed:10608886, high levels in kidney, whereas according to PubMed:9923614, levels are low. .

Protein Name
Thioredoxin reductase 2, mitochondrial

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human TXNRD2(418-434aa RHGQEHVEVYHAHYKPL), different from the related rat sequence by three amino acids, and from the related mouse sequence by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the class-I pyridine nucleotide-disulfide oxidoreductase family.

Anti-TXNRD2 Antibody - Protein Information

Name TXNRD2 (HGNC:18155)

Synonyms KIAA1652, TRXR2

Function
Involved in the control of reactive oxygen species levels and the regulation of mitochondrial redox homeostasis (PubMed:24601690). Maintains thioredoxin in a reduced state. May play a role in redox- regulated cell signaling.

Cellular Location
Mitochondrion.

Tissue Location
Highly expressed in the prostate, ovary, liver, testis, uterus, colon and small intestine. Intermediate levels in brain, skeletal muscle, heart and spleen. Low levels in placenta, pancreas, thymus and peripheral blood leukocytes. According to PubMed:10608886, high levels in kidney, whereas according to PubMed:9923614, levels are low. High expression is observed in the adrenal cortex (PubMed:24601690).

Anti-TXNRD2 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

Anti-TXNRD2 Antibody - Images

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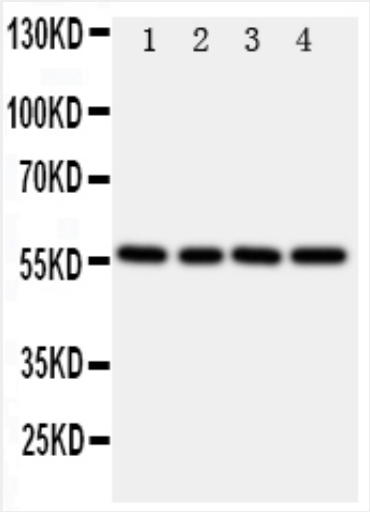
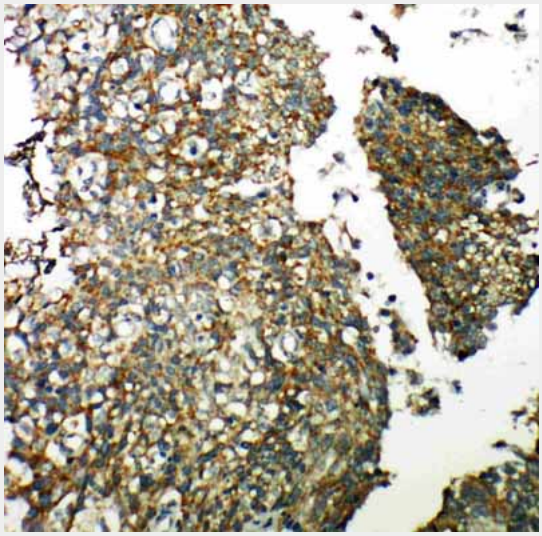


Anti-TXNRD2 antibody, ABO11207, Western blottingLane 1: Rat Kidney Tissue LysateLane 2: Rat Ovary Tissue LysateLane 3: Rat Liver Tissue LysateLane 4: SMMC Cell Lysate



Anti-TXNRD2 antibody, ABO11207, IHC(P)IHC(P): Human Lung Cancer Tissue

Anti-TXNRD2 Antibody - Background

TXNRD2(Thioredoxin reductase 2), also known as TRXR2, TR3, SELZ, or TR-BETA, Thioredoxin reductases, are selenocysteine(sec)-containing flavoenzymes that maintain thioredoxins, small proteins that catalyze redox reactions, in the reduced state using the reducing power of NADPH. By STS analysis and genomic sequence analysis, respectively, Miranda-Vizuete et al.(1999) and Sun et al.(1999) mapped the TXNRD2 gene to chromosome 22q11.2. Miranda-Vizuete et al.(1999) mapped the mouse gene to chromosome 16. Gasdaska et al.(1999) showed that TXNRD2 was a thioredoxin reductase that could directly reduce proteins such as insulin.