

### **TXN Blocking Peptide (C-term)**

Synthetic peptide Catalog # BP20358b

### **Specification**

### TXN Blocking Peptide (C-term) - Product Information

Primary Accession P10599

Other Accession <u>P11232</u>, <u>P08628</u>, <u>P82460</u>, <u>P10639</u>, <u>O97680</u>

# TXN Blocking Peptide (C-term) - Additional Information

### **Gene ID** 7295

### **Other Names**

Thioredoxin, Trx, ATL-derived factor, ADF, Surface-associated sulphydryl protein, SASP, TXN, TRDX, TRX, TRX1

#### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

# TXN Blocking Peptide (C-term) - 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:<a

href="http://www.uniprot.org/citations/2176490" target="\_blank">2176490</a>, PubMed:<a href="http://www.uniprot.org/citations/17182577" target="\_blank">17182577</a>, PubMed:<a href="http://www.uniprot.org/citations/19032234" target="\_blank">19032234</a>). 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:<a

href="http://www.uniprot.org/citations/16408020" target="\_blank">16408020</a>, PubMed:<a href="http://www.uniprot.org/citations/17606900" target="\_blank">17606900</a>). 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:<a

href="http://www.uniprot.org/citations/9108029" target="\_blank">9108029</a>, PubMed:<a href="http://www.uniprot.org/citations/11118054" target=" blank">11118054</a>).



**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).

# TXN Blocking Peptide (C-term) - Protocols

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

• Blocking Peptides

TXN Blocking Peptide (C-term) - Images

TXN Blocking Peptide (C-term) - Background

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.

ADF augments the expression of the interleukin-2 receptor TAC (IL2R/P55).