Data Sheet (Cat.No.TMPY-02572)

TargetMol

TXNDC17 Protein, Human, Recombinant

General Information

Synonyms:	thioredoxin domain containing 17;TXNL5;TRP14
Protein Construction:	A DNA sequence encoding the mature form of human TXNDC17 (Q9BRA2) (Met 1-Asp 123) was expressed and purified, with an initial Met. Predicted N terminal: Met 1
Species:	Human
Expression Host:	E. coli
Accession:	Q9BRA2
Molecular Weight:	13.9 kDa (predicted); 13.9 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Thioredoxin-related protein of 14 kDa (TRP14, also called TXNDC17 for thioredoxin domain containing 17, or TXNL5 for thioredoxin-like 5) is an evolutionarily well-conserved member of the thioredoxin (Trx)-fold protein family that lacks activity with classical Trx1 substrates. TXNDC17 is a novel 14-kDa disulfide reductase of the TXN (thioredoxin) family. TXNDC17 is involved in the TNF (tumor necrosis factor) signaling pathway. Moreover, TXNDC17 plays an important role in Taxol resistance via enhancing autophagy in human colorectal cancer cells. And TXNDC17 may

become a potential target of colorectal cancer therapeutics.

Reference

Holmgren A. (1985) Thioredoxin. Annu Rev Biochem. 54: 237-71.
Holmgren A. (1995) Thioredoxin structure and mechanism: conformational changes on oxidation of the active-site sulfhydryls to a disulfide. Structure. 3 (3): 239-43.
Martin JL. (1995) Thioredoxin--a fold for all reasons. Structure. 3 (3): 245-50.

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