Revision 1

Store at -20C

#71632

Tristetraprolin (D1I3T) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	40-48	Rabbit IgG	#P26651	7538

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Tristetraprolin (D1I3T) Rabbit mAb recognizes endogenous levels of total Trisetraprolin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala235 of human tristetraprolin protein.

Background

Tristetraprolin (TTP), also known as NUP475, G0S24, RNF162A, TIS11, and ZFP36, is a CCCH tandem zinc-finger protein that binds to adenosine and uridine (AU)-rich elements (AREs) within 3'-untranslated regions of mRNA and leads to their rapid degradation (1-6). Expression of TTP is rapidly induced by mitogens and growth factors including insulin, phorbol ester, cytokines, and lipopolysaccharide (LPS). In addition, numerous phosphorylation sites on TTP can regulate its stability, nuclear to cytosolic trafficking, as well as controlling its ARE-binding activity. Many of the target mRNAs for TTP, such as TNF-α, have critical roles in inflammation and cancer (2), and mice deficient in TTP develop a systemic autoimmune inflammatory syndrome along with excessive TNF-α levels (7). Furthermore, suppression of TTP expression has been identified as a negative prognostic indicator for some cancers (8).

Background References

1. Brooks, S.A. and Blackshear, P.J. *Biochim Biophys Acta* 1829, 666-79.
2. Sanduja, S. et al. (2012) *Front Biosci (Landmark Ed)* 17, 174-88.
3. Lai, W.S. et al. (1990) *J Biol Chem* 265, 16556-63.
4. DuBois, R.N. et al. (1990) *J Biol Chem* 265, 19185-91.
5. Varnum, B.C. et al. (1989) *Oncogene* 4, 119-20.
6. Heximer, S.P. and Forsdyke, D.R. *DNA Cell Biol* 12, 73-88.
7. Taylor, G.A. et al. (1996) *Immunity* 4, 445-54.
8. Brennan, S.E. et al. (2009) *Cancer Res* 69, 5168-76.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

Trademarks and Patents

Limited Uses

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