

Store at
-20C
#86050**TIA-1 (D1Q3K) Rabbit mAb**

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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, IP	H	Endogenous	42, 44	Rabbit IgG	#P31483	7072

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

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

TIA-1 (D1Q3K) Rabbit mAb recognizes endogenous levels of total TIA-1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human TIA-1 protein.

Background

T-cell intracellular antibody 1 (TIA-1) is a member of the RNA-recognition motif (RRM) family of RNA-binding proteins that was originally found to induce DNA fragmentation in digitonin-permeabilized thymocytes (1). TIA-1 protein has about 80% identity to the related TIAR protein, both of which possess three amino-terminal RRM domains and a glutamine-rich carboxyl terminus (1,2). Alternative splicing is responsible for generating at least two isoforms of TIA-1 and TIAR (3,4). Several research studies indicate that TIA-1 and TIAR play a role in apoptosis, cellular stress, and inflammation. Importantly, TIA-1 and TIAR translocate from the nucleus to stress granules in response to a variety of environmental stresses (5-8). Stress granules function as sites of translational repression in response to potentially damaging conditions. mRNA transcripts targeted by TIA-1 and TIAR include TNF-α, COX-2, cytochrome c, GADD45α, and HIF-1α (8-13).

Background References

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5. Kedersha, N.L. et al. (1999) *J Cell Biol* 147, 1431-42.
6. Gilks, N. et al. (2004) *Mol Biol Cell* 15, 5383-98.
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10. Piecyk, M. et al. (2000) *EMBO J* 19, 4154-63.
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12. Dixon, D.A. et al. (2003) *J Exp Med* 198, 475-81.
13. Lal, A. et al. (2006) *Mol Cell* 22, 117-28.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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