Revision 1

#41658 Store at -20C

TRAF5 (D3E2R) 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:
WB	H	Endogenous	64	Rabbit IgG	#O00463	7188

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

TRAF5 (D3E2R) Rabbit mAb recognizes endogenous levels of total TRAF5 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His383 of human TRAF5 protein.

Background

TRAFs (TNF receptor-associated factors) are a family of multifunctional adaptor proteins that bind to surface receptors and recruit additional proteins to form multiprotein signaling complexes capable of promoting cellular responses (1-3). Members of the TRAF family share a common carboxy-terminal "TRAF domain", which mediates interactions with associated proteins; many also contain amino-terminal Zinc/RING finger motifs. The first TRAFs identified, TRAF1 and TRAF2, were found by virtue of their interactions with the cytoplasmic domain of TNF-receptor 2 (TNFRII) (4). The six known TRAFs (TRAF1-6) act as adaptor proteins for a wide range of cell surface receptors and participate in the regulation of cell survival, proliferation, differentiation, and stress responses.
TRAF5 regulates signaling through binding to the cytoplasmic domains of TNFR famly members including CD40, CD27, CD30, OX40, and lymphotoxin-β receptor (5-10). Overexpression of TRAF5 induces NF-κB activation. Cytoplasmic aggregates of TRAF5, as well as TRAF2, were reported in Hodgkin-Reed-Sternberg cells, resulting in constitutive NF-κB activation (11).
Studies of TRAF5 deficient mice suggest that it plays an important role in limiting Th2 immune responses that triggers T-cell mediated inflammatory diseases and asthma (12). Further studies indicate that TRAF5 binds to the IL-6 receptor gp130 and negatively controls Th17 differentation (13). In B-cells, TRAF5 negatively regulates toll-like receptor (TLR) mediated cytokine and antibody production (14).

Background References

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4. Rothe, M. et al. (1994) *Cell* 78, 681-92.
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6. Ishida, T.K. et al. (1996) *Proc Natl Acad Sci U S A* 93, 9437-42.
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11. Horie, R. et al. (2002) *Am J Pathol* 160, 1647-54.
12. So, T. et al. (2004) *J Immunol* 172, 4292-7.
13. Nagashima, H. et al. (2014) *Nat Immunol* 15, 449-56.
14. Buchta, C.M. and Bishop, G.A. (2014) *J Immunol* 192, 145-50.

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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Limited Uses