

#8347 Store at -20°C

## TRAF Antibody Sampler Kit

1 Kit (4 x 20 microliters)



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TECHNOLOGY®

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

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
TRAF1 (45D3) Rabbit mAb	4715	20 µl	50 kDa	Rabbit
TRAF2 (C192) Antibody	4724	20 µl	53 kDa	Rabbit
TRAF3 Antibody	4729	20 µl	62 kDa	Rabbit
TRAF6 (D21G3) Rabbit mAb	8028	20 µl	60 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

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### Description

The TRAF Antibody Sampler Kit provides an economical means to evaluate endogenous levels of TRAF1, 2, 3, and 6. The kit contains enough primary and secondary antibodies to perform two western mini-blot experiments.

### 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.

### 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 (TNFR2) (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.

While TRAF2 was originally described through its interaction with TNFR2, it has since been shown to interact with other surface receptors including CD27, CD30, CD40, 4-1BB, Ox40, HVEM/ATAR, and LMP-1 (1-3). TRAF2 also associates with a large number of intracellular proteins, including TRADD, FADD, I-TRAF/TANK, TRIP, A20, c-IAP1 and 2, Casper, RIP, and NIK, which help to regulate cell survival. Dominant negative and knockout studies have shown that TRAF2 plays an important role in TNF-mediated activation of NF-κB and the MAPK/JNK kinase pathway (5-7).

TRAF6 plays a critical role in innate and adaptive immunity, bone metabolism, and development of certain tissues including the nervous system (8). TRAF6 deficiency results in osteopetrosis and defective IL-1, CD40, and LPS signaling (9) as well as defects in neuronal development (10). Unlike other TRAF family members that mediate signaling through TNF, TRAF6 has unique binding activities (11) that result in signaling responses from the interleukin-1 receptor (IL-1R) (12), toll-like receptor (13,14), CD (15), RANK (16,17), and p75 neurotrophin receptor (18). TRAF6 associates directly with CD40 and RANK, and indirectly with IL-1R/TLR through IRAK (13). This leads to activation of NF-κB and MAP kinase signaling pathways through downstream association with the TAB/TAK-1 complex (19). TRAF6 also activates Src family nonreceptor tyrosine kinases leading to Akt activation (20).

### Background References

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