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[Primary Antibody]

Rabbit Anti-TRAF2 antibody

Catalog Number: SL22372R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	TRAF2
Immunogen:	KLH conjugated synthetic peptide derived from human TRAF2 : 261-360/501
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, Rat
Predicted MW.:	56kDa
Subcellular Location:	cytoplasmic
Background:	The induction of the various cellular responses mediated by tumor necrosis factor is initiated by its interaction with the TNFR1 and TNFR2 cell surface receptors. TRAF2 interacts with the cytoplasmic domain of TNFR2. TRAF2 is a common signal transducer for TNFR2 and CD40 that mediates activation of NF kappa B. **Function:** Regulates activation of NF-kappa-B and JNK and plays a central role in the regulation of cell survival and apoptosis. Required for normal antibody isotype switching from IgM to IgG. Has E3 ubiquitin-protein ligase activity and promotes 'Lys-63'-linked ubiquitination of target proteins, such as BIRC3, RIPK1 and TICAM1. Is an essential constituent of several E3 ubiquitin-protein ligase complexes, where it promotes the ubiquitination of target proteins by bringing them into contact with other E3 ubiquitin ligases. Regulates BIRC2 and BIRC3 protein levels by inhibiting their autoubiquitination and subsequent degradation; this does not depend on the TRAF2 RING-type zinc finger domain. Isoform 2 does not seem to mediate

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	activation of NF-kappa-B but inhibits isoform 1 activity. Plays a role in mediating activation of NF-kappa-B by EIF2AK2/PKR. **Subunit:** Homotrimer, and heterotrimer with TRAF1 and TRAF3 (via TRAF domain). The domain containing the RING-type and the first TRAF-type zinc finger can also form homodimers (in vitro). Interacts with TNFRSF1B/TNFR2, TNFRSF4, TNFRSF5/CD40, CD27/TNFRSF7, TNFRSF8/CD30, TNFRSF9/CD137, TNFRSF11A/RANK, TNFRSF13B/TACI, TNFRSF14, TNFRSF16/NGFR, TNFRSF17/BCMA, TNFRSF18/AITR, TNFRSF19/TROY, TNFRSF19L/RELT, XEDAR, EDAR, Epstein-Barr virus BNFL1/LMP-1 and IL15RA. Interacts with CDK9, CSK, MAP3K1, MAP3K5, MAP3K11, MAP3K14, MAP4K2, RIPK1, RIPK2, TNIK, TBK1, SPHK1, TRADD, TRAFD1, TRAIP, TANK/ITRAF, TNFAIP3, TDP2, MAVS/IPS1, TICAM1 and TRPC4AP. Interacts with CASP8AP2, NFATC2IP, PEG3 and HIVEP3. Interacts with BIRC2 and BIRC3 N-terminus; a single BIRC2 or BIRC3 molecule interacts with a heterotrimer formed by TRAF1 and TRAF2, or a TRAF2 homotrimer. Identified in a complex composed of TRAF2, TRAF3, BIRC2 and/or BIRC3. Interaction with BIRC2 and/or BIRC3 is essential for degradation of NFKBIA and activation of NF-kappa-B. Interacts with CYLD, USP48, IKKA and IKKB. Interacts (via 'Lys-63'-linked polyubiquitin chains) with TAB2 and TAB3 (By similarity). Interaction with TAOK3 is facilitated under ER stress conditions, such as treatment with tunicamycin, and may promote TRAF2 phosphorylation (By similarity). Interacts with CASP12 under resting conditions; this interaction is reduced in ER stress conditions. Interacts (via zinc fingers) with DAB2IP (via C-terminus PER domain); the interaction occurs in a TNF-alpha-dependent manner (By similarity). Interacts with ERN1; the interaction requires DAB2IP. Interacts with DAB2IP. Interacts (via C-terminus) with EIF2AK2/PKR (via the kinase catalytic domain) (By similarity). **Subcellular Location:** Cytoplasm. **Tissue Specificity:** soform 1 and isoform 2 are expressed in spleen, adipose tissues, skeletal muscles, thymus, testis, heart, lung, brain. Isoform 2 is very weakly expressed in heart, lung and brain. **Post-translational modifications:** Phosphorylated at several serine residues within the first 128 amino acid residues. Phosphorylated at Thr-117 in response to signaling via TNF and TNFRSF1A. Phosphorylation at Thr-117 is required for 'Lys-63'-linked polyubiquitination, but not for 'Lys-48'-linked polyubiquitination. Phosphorylation at Thr-117 is important for interaction

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	with IKKA and IKKB, activation of IKK and subsequent activation of NF-kappa-B (By similarity). Undergoes both 'Lys-48'-linked and 'Lys-63'-linked polyubiquitination. Polyubiquitinated via 'Lys-63'-linked ubiquitin in response to TNF signaling; this requires prior phosphorylation at Thr-117. 'Lys-63'-linked polyubiquitination promotes TRAF2-mediated activation of NF-kappa-B. Can be polyubiquitinated at several Lys residues via 'Lys-48'-linked ubiquitin chains in response to TNF signaling, leading to proteasomal degradation. Autoubiquitinated, leading to its subsequent proteasomal degradation. Polyubiquitinated by BIRC2 and SIAH2, leading to its subsequent proteasomal degradation. Not ubiquitinated by BIRC3 or SIAH1. Deubiquitinated by CYLD, a protease that specifically cleaves 'Lys-63'-linked polyubiquitin chains (By similarity). **Similarity:** Belongs to the TNF receptor-associated factor family. A subfamily. Contains 1 MATH domain. Contains 1 RING-type zinc finger. Contains 2 TRAF-type zinc fingers. **Database links:** **Entrez Gene:** 7186 Human **Entrez Gene:** 22030 Mouse **Entrez Gene:** 311786 Rat Omim: 601895 Human **SwissProt:** Q12933 Human **SwissProt:** P39429 Mouse **Unigene:** 522506 Human **Unigene:** 3399 Mouse Signaling Intermediates TRAF2 plays a certain role in mediating Apoptosis signals and in the apoptosis of Tumour cells. TRAF2 is widely distributed and expressed in all tissues tested, including heart, brain, spleen, lung, liver, skeletal muscle, kidney, and testis. TRAF2 can mediate TNFRII, CD40, CD30, and EV virus-transforming protein LMP1 activation of NF-kB.

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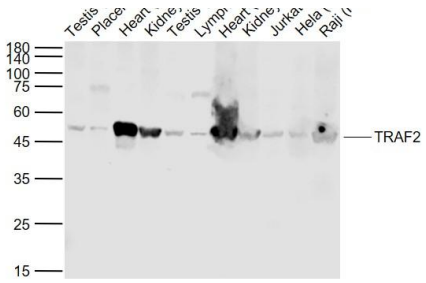
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[VALIDATION IMAGES]



Sample:
Lane 1: Testis (Mouse) Lysate at 40 ug
Lane 2: Placenta (Mouse) Lysate at 40 ug
Lane 3: Heart (Mouse) Lysate at 40 ug
Lane 4: Kidney (Mouse) Lysate at 40 ug
Lane 5: Testis (Rat) Lysate at 40 ug
Lane 6: Lymph node (Rat) Lysate at 40 ug
Lane 7: Heart (Rat) Lysate at 40 ug
Lane 8: Kidney (Rat) Lysate at 40 ug
Lane 9: Jurkat (Human) Cell Lysate at 30 ug
Lane 10: Hela (Human) Cell Lysate at 30 ug
Lane 11: Raji (Human) Cell Lysate at 30 ug
Primary: Anti-TRAF2 (SL22372R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 50 kD
Observed band size: 50 kD

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