Revision 1

Store at -20C

#3744

TAB2 Antibody

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, IP	H M	Endogenous	80	Rabbit	#Q9NYJ8	23118

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

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

Specificity/Sensitivity

TAB2 Antibody detects endogenous levels of TAB2 protein.

Species predicted to react based on 100% sequence homology

Monkey, Chicken, Bovine

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys556 of TAB2. Antibodies were purified by protein A and peptide affinity chromatography.

Background

TAK1 is a mitogen-activated protein kinase kinase kinase activated by TGF-β and various pro-inflammatory signals (1,2). *In vivo*, TAK1 activation requires its association with TAK1 binding protein 1 (TAB1), which triggers TAK1 autophosphorylation at Thr184 and Thr187 (3,4). The TAB2 adaptor protein links TAK1 with TRAF6 to mediate TAK1 activation following IL-1 stimulation (5). Once activated, TAK1 phosphorylates the MAPK kinases MKK4 and MKK3/6, which activate JNK and p38 MAPK, respectively. TAK1 and TRAF6 also activate the NF-κB pathway by phosphorylating the NF-κB inducing kinase (NIK) to trigger subsequent activation of IKK (2,6). In addition to TAK1, TAB1 interacts with and activates p38α MAPK (7). Targeted disruption of the TAB1 gene in mice causes a drastic reduction in TAK1 activity and leads to embryonic lethality (8).

Background References

1. Yamaguchi, K. et al. (1995) *Science* 270, 2008-11.
2. Ninomiya-Tsuji, J. et al. (1999) *Nature* 398, 252-6.
3. Shibuya, H. et al. (1996) *Science* 272, 1179-82.
4. Sakurai, H. et al. (2000) *FEBS Lett* 474, 141-5.
5. Takaesu, G. et al. (2000) *Mol Cell* 5, 649-58.
6. Wang, C. et al. (2001) *Nature* 412, 346-51.
7. Ge, B. et al. (2002) *Science* 295, 1291-4.
8. Komatsu, Y. et al. (2002) *Mech Dev* 119, 239-49.

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 **M:** Mouse

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Limited Uses

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