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TAB1 (C25E9) Rabbit mAb

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

Applications: W, IP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 60	Source/Isotype: Rabbit IgG	UniProt ID: #Q15750	Entrez-Gene Id: 10454
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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

TAB1 (C25E9) Rabbit mAb detects endogenous levels of total TAB1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro381 of human TAB1.

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 **Mk:** Monkey

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