

**Product Name: TAK1 (1307) Rabbit Monoclonal Antibody**  
**Catalog #: AMRe18632**

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## Summary

<b>Production Name</b>	TAK1 (1307) Rabbit Monoclonal Antibody
<b>Description</b>	Rabbit Monoclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	MAP3K7 {ECO:0000303 PubMed:28397838, ECO:0000312 HGNC:HGNC:6859}
<b>Alternative Names</b>	MAP3K 7; MEKK7; Mitogen activated protein kinase kinase kinase 7; TAK1; TGF beta activated kinase 1; TGF1a;
<b>Gene ID</b>	6885.0
<b>SwissProt ID</b>	O43318.A synthetic peptide of human TAK1

## Application

<b>Dilution Ratio</b>	WB: 1:2000
<b>Molecular Weight</b>	67kDa

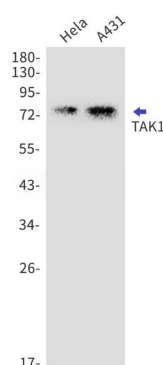
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## Background

Component of a protein kinase signal transduction cascade. Mediator of TRAF6 and TGF-beta signal transduction. Activates IKK $\beta$  and MAPK8 in response to TRAF6 signaling. Stimulates NF-kappa-B activation and the p38 MAPK pathway. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK, but not that of NF-kappa-B. Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signal transduction of TRAF6, various cytokines including interleukin-1 (IL-1), transforming growth factor-beta (TGF $\beta$ ), TGF $\beta$ -related factors like BMP2 and BMP4, toll-like receptors (TLR), tumor necrosis factor receptor CD40 and B-cell receptor (BCR). Ceramides are also able to activate MAP3K7/TAK1. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K1/MEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs, c-jun N-terminal kinases (JNKs) and I-kappa-B kinase complex (IKK). Both p38 MAPK and JNK pathways control the transcription factors activator protein-1 (AP-1), while nuclear factor-kappa B is activated by IKK. MAP3K7 activates also IKK $\beta$  and MAPK8/JNK1 in response to TRAF6 signaling and mediates BMP2-induced apoptosis. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK1, but not that of NF-kappa-B. Promotes TRIM5 capsid-specific restriction activity. Phosphorylates RIPK1 at 'Ser-321' which positively regulates RIPK1 interaction with RIPK3 to promote necroptosis but negatively regulates RIPK1 kinase activity and its interaction with FADD to mediate apoptosis (By similarity).

## Research Area

## Image Data



Western blot detection of TAK1 in HeLa,A431 cell lysates using TAK1 antibody(1:1000 diluted).

## Note

For research use only.

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