TAB1 Protein, Human

Cat. No.:	HY-P701640
Synonyms:	TAB1; TGF-beta-activated kinase 1 and MAP3K7-binding protein 1; Mitogen-activated protein kinase kinase kinase 7-interacting protein 1; TGF-beta-activated kinase 1-binding protein 1; TAK1-binding protein 1
Species:	Human
Source:	E. coli
Accession:	Q15750 (M1-G370)
Gene ID:	10454
Molecular Weight:	Approximately 40.6 kDa

PROPERTIES

Appearance	Solution
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	TAB1, a pivotal adapter protein, assumes a central role in the activation of JNK and NF-kappa-B, as well as the production of proinflammatory cytokines in response to TLRs and cytokine stimulation. Mechanistically, TAB1 associates with the catalytic domain of MAP3K7/TAK1, instigating MAP3K7/TAK1 autophosphorylation and ensuing full activation. This association also extends to MAPK14, triggering its autophosphorylation and activation. Intriguingly, MAPK14, in turn, phosphorylates TAB1, instigating a feedback control mechanism that inhibits MAP3K7/TAK1 activation. TAB1's involvement in recruiting MAPK14 to the TAK1 complex, where it phosphorylates the regulatory subunits TAB2 and TAB3, further underscores its regulatory role. Additionally, TAB1 interacts with XIAP and BIRC7, contributing to its intricate network of molecular associations. Notably, TAB1 engages with TRAF6 and MAP3K7 during IL-1 signaling, forming essential interactions that mediate downstream signaling events. Identified as part of the TRIKA2 complex, comprising MAP3K7, TAB1, and TAB2, TAB1's multifaceted interactions highlight its significance in orchestrating intricate signaling cascades.

Caution: Product has not been fully validated for medical applications. For research use only.

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