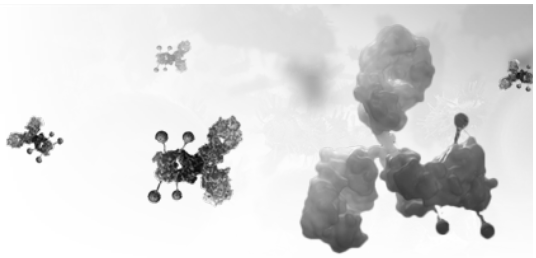

Mouse anti-Rat TAO1 monoclonal antibody, clone 33/UBP2 (CABT-B9334)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Rat TAO1 aa. 352-550
Isotype	IgG2a
Source/Host	Mouse
Species Reactivity	Rat, Human, Mouse
Clone	33/UBP2
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 µg/ml
Size	50 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	Mitogen activated protein kinases (MAPKs) are critical components of several signal

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	transduction pathways that convert extracellular stimuli into cellular responses. Four groups of MAPKs (ERKs, JNKs, p38, and ERK5) have been identified in mammalian cells. MAPK pathways contain a 3-kinase cascade consisting of a MAPK, a MAP/ERK kinase (MEK), and a MEK kinase (MEKK). MEKK phosphorylation of MEKs leads to activation and subsequent MEK-mediated phosphorylation of both Thr and Tyr residues at the Thr-X-Tyr dual phosphorylation motif of MAPKs. TAO1 was isolated from a rat cDNA library using the sequence from yeast Ste20p kinase. Sequence analysis shows that TAO1 contains an N-terminal Ser/Thr protein kinase domain, an acidic domain, and two serine-rich domains. The catalytic domain of TAO1 is 40% identical to the p21-activated kinases, PAK1 and PAK2, and 33% identical to MEKK1. TAO1 expression is highest in brain, but it is also detected in heart and lung. TAO1 can activate MEK3, MEK4, and MEK6 from the stress-responsive MAPK pathway, but not MEK1 or 2 from the classical MAPK pathway. Thus, TAO1 may be an important MEKK in the p38-containing stress-responsive MAPK pathway.
Keywords	TAOK1; TAO kinase 1; PSK2; TAO1; KFC-B; MARKK; PSK-2; hKFC-B; hTAOK1; MAP3K16; serine/threonine-protein kinase TAO1; MARK Kinase; STE20-like kinase PSK2; kinase from chicken homolog B; prostate-derived STE20-like kinase 2; thousand and one amino acid protein 1; prostate-derived sterile 20-like kinase 2; serine/threonine protein kinase TAO1 homolog; thousand and one amino acid protein kinase 1; microtubule affinity regulating kinase kinase;

GENE INFORMATION

Entrez Gene ID	57551
UniProt ID	A0A024QZ70

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