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TAOK1 Rabbit mAb

Catalog # AP76730

Product Information

Application	WB
Primary Accession	Q7L7X3
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	116070

Additional Information

Gene ID	57551
Other Names	TAOK1
Dilution	WB~~1:1000
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	TAOK1
Synonyms	KIAA1361, MAP3K16, MARKK
Function	Serine/threonine-protein kinase involved in various processes such as p38/MAPK14 stress-activated MAPK cascade, DNA damage response and regulation of cytoskeleton stability. Phosphorylates MAP2K3, MAP2K6 and MARK2. Acts as an activator of the p38/MAPK14 stress-activated MAPK cascade by mediating phosphorylation and subsequent activation of the upstream MAP2K3 and MAP2K6 kinases. Involved in G protein-coupled receptor signaling to p38/MAPK14. In response to DNA damage, involved in the G2/M transition DNA damage checkpoint by activating the p38/MAPK14 stress-activated MAPK cascade, probably by mediating phosphorylation of MAP2K3 and MAP2K6. Acts as a regulator of cytoskeleton stability by phosphorylating 'Thr-208' of MARK2, leading to activate MARK2 kinase activity and subsequent phosphorylation and detachment of MAPT/TAU from microtubules. Also acts as a regulator of apoptosis: regulates apoptotic

	morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation via activation of the MAPK8/JNK cascade. Plays an essential role in the regulation of neuronal development in the central nervous system (PubMed:33565190). Also plays a role in the regulation of neuronal migration to the cortical plate (By similarity).
Cellular Location	Cytoplasm.
Tissue Location	Highly expressed in the testis, and to a lower extent also expressed in brain, placenta, colon and skeletal muscle

Background

Enables alpha-tubulin binding activity; beta-tubulin binding activity; and kinase activity. Involved in several processes, including mitotic G2 DNA damage checkpoint signaling; negative regulation of microtubule depolymerization; and positive regulation of JNK cascade. Located in microtubule cytoskeleton and perinuclear region of cytoplasm.

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