

TAOK1 / TAO1 Antibody (aa431-480) Rabbit Polyclonal Antibody Catalog # ALS15519

Specification

TAOK1 / TAO1 Antibody (aa431-480) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW WB <u>Q7L7X3</u> Human, Mouse, Rat Rabbit Polyclonal 116kDa KDa

TAOK1 / TAO1 Antibody (aa431-480) - Additional Information

Gene ID 57551

Other Names

Serine/threonine-protein kinase TAO1, 2.7.11.1, Kinase from chicken homolog B, hKFC-B, MARK Kinase, MARKK, Prostate-derived sterile 20-like kinase 2, PSK-2, PSK2, Prostate-derived STE20-like kinase 2, Thousand and one amino acid protein kinase 1, TAOK1, hTAOK1, TAOK1, KIAA1361, MAP3K16, MARKK

TAOK1 Antibody detects endogenous levels of total TAOK1 protein.

Reconstitution & Storage Store at -20°C for up to one year.

Precautions TAOK1 / TAO1 Antibody (aa431-480) is for research use only and not for use in diagnostic or therapeutic procedures.

TAOK1 / TAO1 Antibody (aa431-480) - 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

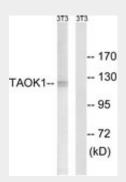
Volume 50 μl

TAOK1 / TAO1 Antibody (aa431-480) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

TAOK1 / TAO1 Antibody (aa431-480) - Images



Western blot of extracts from NIH-3T3 cells, using TAOK1 Antibody.

TAOK1 / TAO1 Antibody (aa431-480) - Background

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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.

TAOK1 / TAO1 Antibody (aa431-480) - References

Yustein J.T., et al.Oncogene 22:6129-6141(2003). Jenkins S.G., et al.Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases. Matsuda A., et al.Patent number WO2004058805, 15-JUL-2004. Nagase T., et al.DNA Res. 7:65-73(2000). Ota T., et al.Nat. Genet. 36:40-45(2004).