10320 Camino Santa Fe, Suite G
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TAOK1 / TAO1 Antibody (Internal)

Rabbit Polyclonal Antibody
Catalog # ALS10882

Specification

TAOK1 / TAO1 Antibody (Internal) - Product Information

Application	**IHC**
Primary Accession	Q7L7X3
Reactivity	**Human, Mouse, Rabbit, Hamster, Monkey, Pig, Horse, Xenopus, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**116kDa KDa**

TAOK1 / TAO1 Antibody (Internal) - 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

Target/Specificity
Human TAOK1. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except TAOK3 (63%).

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

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

TAOK1 / TAO1 Antibody (Internal) - 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

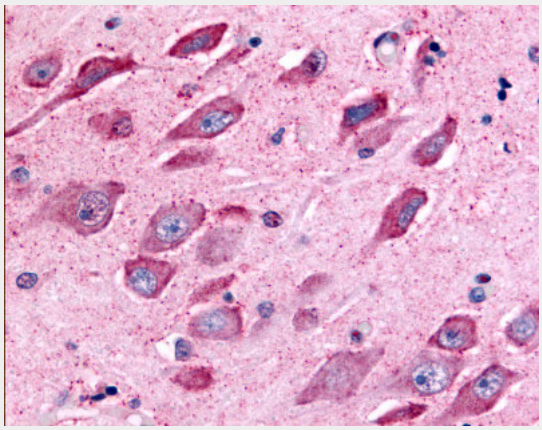
Volume
50 µl

TAOK1 / TAO1 Antibody (Internal) - Protocols

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

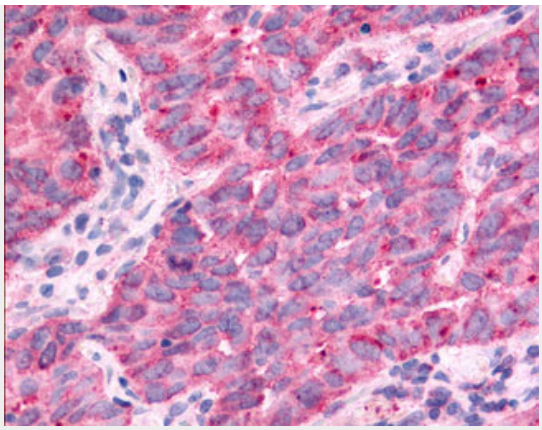
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TAOK1 / TAO1 Antibody (Internal) - Images



Anti-TAOK1 antibody ALS10882 IHC of human brain, hippocampus.

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Anti-TAOK1 / TAO1 antibody IHC of human Lung, Non-Small Cell Carcinoma.

TAOK1 / TAO1 Antibody (Internal) - Background

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TAOK1 / TAO1 Antibody (Internal) - 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).