

Anti-TAOK2 / TAO2 Antibody (clone 2E2)

Mouse Anti Human Monoclonal Antibody Catalog # ALS17646

Specification

Anti-TAOK2 / TAO2 Antibody (clone 2E2) - Product Information

Application WB, IHC-P, E
Primary Accession O9UL54
Predicted Human
Host Mouse
Clonality Monoclonal
Isotype IgG2a,k
Calculated MW 138251

Anti-TAOK2 / TAO2 Antibody (clone 2E2) - Additional Information

Gene ID 9344

Alias Symbol TAOK2

Other Names

TAOK2, Kinase from chicken homolog C, HKFC-C, PSK, PSK-1, PSK1-BETA, TAO1, TAO kinase 2, TAO2, PSK1, KIAA0881, MAP3K17

Reconstitution & Storage

Protein A purified

Precautions

Anti-TAOK2 / TAO2 Antibody (clone 2E2) is for research use only and not for use in diagnostic or therapeutic procedures.

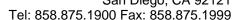
Anti-TAOK2 / TAO2 Antibody (clone 2E2) - Protein Information

Name TAOK2

Synonyms KIAA0881, MAP3K17, PSK, PSK1

Function

Serine/threonine-protein kinase involved in different processes such as membrane blebbing and apoptotic bodies formation DNA damage response and MAPK14/p38 MAPK stress-activated MAPK cascade. Phosphorylates itself, MBP, activated MAPK8, MAP2K3, MAP2K6 and tubulins. Activates the MAPK14/p38 MAPK signaling pathway through the specific activation and phosphorylation of the upstream MAP2K3 and MAP2K6 kinases. 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 upstream MAP2K3 and MAP2K6 kinases. Isoform 1, but not isoform 2, plays a role in apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation. This function, which requires the activation of MAPK8/JNK and nuclear localization of C- terminally truncated isoform 1, may be linked to the mitochondrial CASP9-associated death pathway. Isoform 1 binds to microtubules and affects their





organization and stability independently of its kinase activity. Prevents MAP3K7-mediated activation of CHUK, and thus NF- kappa-B activation, but not that of MAPK8/JNK. May play a role in the osmotic stress-MAPK8 pathway. Isoform 2, but not isoform 1, is required for PCDH8 endocytosis. Following homophilic interactions between PCDH8 extracellular domains, isoform 2 phosphorylates and activates MAPK14/p38 MAPK which in turn phosphorylates isoform 2. This process leads to PCDH8 endocytosis and CDH2 cointernalization. Both isoforms are involved in MAPK14 phosphorylation.

Cellular Location

Cytoplasmic vesicle membrane; Multi-pass membrane protein. Cytoplasm, cytoskeleton Nucleus. Note=Catalytically active full-length phosphorylated isoform 1 localizes to microtubules in the cytoplasm predominantly on microtubule cables positioned around the nucleus. A C-terminally truncated form of isoform 1 is present in the nucleus; isoform 2 and kinase-defective, as well as full-length isoform 1 are excluded from the nucleus

Tissue Location

Ubiquitously expressed, with a higher level of expression in testis and brain.

Anti-TAOK2 / TAO2 Antibody (clone 2E2) - Protocols

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

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

Anti-TAOK2 / TAO2 Antibody (clone 2E2) - Images