

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

Mouse Anti Human Monoclonal Antibody

Catalog # ALS17646

## Product Information

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|------------------------------|------------------------|
| <b>Application</b>           | WB, IHC-P, E           |
| <b>Primary Accession</b>     | <a href="#">Q9UL54</a> |
| <b>Predicted</b>             | Human                  |
| <b>Host</b>                  | Mouse                  |
| <b>Clonality</b>             | Monoclonal             |
| <b>Isotype</b>               | IgG2a,k                |
| <b>Clone Names</b>           | 2E2                    |
| <b>Calculated MW</b>         | 138251                 |
| <b>Concentration (mg/ml)</b> | 0.5 mg/ml              |

## Additional Information

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|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                      | 9344                                                                                                                     |
| <b>Alias Symbol</b>                 | TAOK2                                                                                                                    |
| <b>Other Names</b>                  | TAOK2, Kinase from chicken homolog C, HKFC-C, PSK, PSK-1, PSK1-BETA, TAO1, TAO kinase 2, TAO2, PSK1, KIAA0881, MAP3K17   |
| <b>Reconstitution &amp; Storage</b> | Protein A purified                                                                                                       |
| <b>Precautions</b>                  | Anti-TAOK2 / TAO2 Antibody (clone 2E2) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| <b>Name</b>     | TAOK2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Synonyms</b> | KIAA0881, MAP3K17, PSK, PSK1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Function</b> | 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.