# TAOK2 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | TAOK2, Polyclonal Antibody |
| **Full Product Name** | TAOK2 Antibody, HRP conjugated |
| **Product Gene Name** | anti-TAOK2 antibody |
| **Product Synonym Names** | Serine/threonine-protein kinase TAO2; Kinase from chicken homolog C; hKFC-C; Prostate-derived sterile 20-like kinase 1; PSK-1; PSK1; Prostate-derived STE20-like kinase 1; Thousand and one amino acid protein kinase 2; TAOK2; KIAA0881; MAP3K17; PSK; PSK1; ORF Names:UNQ2971/PRO7431 |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Liquid |
| **Purity/Purification** | >95%, Protein G purified |
| **Preparation and Storage** | Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze. |
| **Matching Pairs** | Unconjugated Antibody: TAOK2 (MBS7105477)<br>HRP Conjugated Antibody: TAOK2 (MBS7105478) |
| **Molecular Weight** | 126,204 Da |
| **OMIM** | AF061943 mRNA |
| **3D Structure** | ModBase 3D Structure for Q9UL54 |
| **Immunogen** | Recombinant Human Serine/threonine-protein kinase TAO2 protein (719-880AA) |
| **Conjugation** | HRP |
| **Buffer** | Preservative: 0.03% Proclin 300<br>Constituents: 50% Glycerol, 0.01M PBS, pH 7.4 |
| **Product Categories/Family for anti-TAOK2 antibody** | Signal Transduction |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Applications Tested/Suitable for anti-TAOK2 antibody** | ELISA (EIA) |

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| **Related Product Information for anti-TAOK2 antibody** | 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. |
| **Other Notes** | Small volumes of anti-TAOK2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for TAOK2 purchase** | MBS7105478 is an antibody targeting TAOK2. Also known as TAOK2 Antibody, HRP conjugated. Reactive in Human. Host: Rabbit. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TAOK2. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 354721195 |
| **NCBI GeneID** | 9344 |
| **NCBI Accession #** | NP_001238972.1 |
| **UniProt Primary Accession #** | Q9UL54 |
| **UniProt Secondary Accession #** | O94957; Q6UW73; Q7LC09; Q9NSW2; A5PKY1; A7MCZ2; B2RN35; B7ZM88 |
| **UniProt Related Accession #** | Q9UL54 |
| **GenBank Nucleotide #** | NM_001252043.1 |
| **NCBI Official Full Name** | serine/threonine-protein kinase TAO2 isoform 3 |
| **NCBI Official Synonym Full Names** | TAO kinase 2 |
| **NCBI Official Symbol** | TAOK2 |
| **NCBI Official Synonym Symbols** | PSK; PSK1; TAO1; TAO2; MAP3K17; PSK1-BETA |
| **UniProt Protein Name** | Serine/threonine-protein kinase TAO2 |
| **UniProt Synonym Protein Names** | Kinase from chicken homolog C; hKFC-C; Prostate-derived sterile 20-like kinase 1; PSK-1; PSK1; Prostate-derived STE20-like kinase 1; Thousand and one amino acid protein kinase 2 |
| **Protein Family** | Serine/threonine-protein kinase |
| **UniProt Gene Name** | TAOK2 |
| **UniProt Synonym Gene Names** | KIAA0881; MAP3K17; PSK; PSK1; hKFC-C; PSK-1; PSK1; Prostate-derived STE20-like kinase 1 |
| **NCBI Protein Information** | serine/threonine-protein kinase TAO2 |
| **NCBI Summary for TAOK2** | This gene encodes a serine/threonine protein kinase that is involved in many different processes, including, cell signaling, microtubule organization and stability, and apoptosis. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Oct 2011] |
| **Research Articles on TAOK2** | **1.** tau is a good substrate for PSK1 and PSK2 phosphorylation with mass spectrometric analysis of phosphorylated tau revealing more than 40 tau residues as targets of these kinases. |

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| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |
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