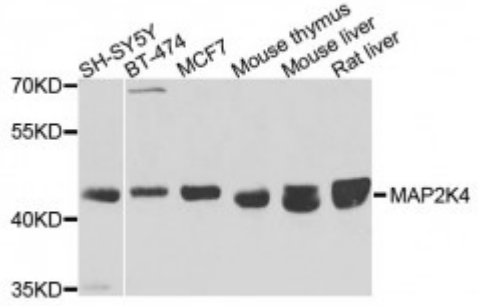
# Anti-MAP2K4 Antibody

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| **Description** | This gene encodes a member of the mitogen-activated protein kinase (MAPK) family. Members of this family act as an integration point for multiple biochemical signals and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation, and development. They form a three-tiered signaling module composed of MAPKKKs, MAPKKs, and MAPKs. This protein is phosphorylated at serine and threonine residues by MAPKKKs and subsequently phosphorylates downstream MAPK targets at threonine and tyrosine residues. A similar protein in mouse has been reported to play a role in liver organogenesis. A pseudogene of this gene is located on the long arm of chromosome X. Alternative splicing results in multiple transcript variants. |

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| **Model** | STJ116981 |
| **Host** | Rabbit |
| **Reactivity** | Human, Mouse, Rat |
| **Applications** | IHC, WB |
| **Immunogen** | Recombinant fusion protein containing a sequence corresponding to amino acids 300-399 of human MAP2K4 (NP_003001.1). |
| **Gene ID** | 6416 |
| **Gene Symbol** | MAP2K4 |
| **Dilution range** | WB 1:500 - 1:2000<br>IHC 1:50 - 1:200 |
| **Tissue Specificity** | Abundant expression is seen in the skeletal muscle, It is also widely expressed in other tissues |

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| **Purification** | Affinity purification |
| **Note** | For Research Use Only (RUO). |
| **Protein Name** | Dual specificity mitogen-activated protein kinase kinase 4 MAP kinase kinase 4 MAPKK 4 |
| **Molecular Weight** | 44.288 kDa |
| **Clonality** | Polyclonal |
| **Conjugation** | Unconjugated |
| **Isotype** | IgG |
| **Formulation** | PBS with 0.02% sodium azide, 50% glycerol, pH7.3. |
| **Storage Instruction** | Store at -20C. Avoid freeze / thaw cycles. |
| **Database Links** | HGNC:6844OMIM:601335Reactome:R-HSA-2559580 |
| **Alternative Names** | Dual specificity mitogen-activated protein kinase kinase 4 MAP kinase kinase 4 MAPKK 4 |
| **Function** | Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway, Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway, With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3, MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif, MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue, The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to proinflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs, MAP2K4 is required for maintaining peripheral lymphoid homeostasis, The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis, Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14, |
| **Cellular Localization** | Cytoplasm |
| **Post-translational Modifications** | Activated by phosphorylation on Ser-257 and Thr-261 by MAP kinase kinase kinases (MAP3Ks), |