# Recombinant Human MAPKAP1 Protein (2-522 aa), His-SUMO-tagged

**Cat. No.** MAPKAP1-1797H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human MAPKAP1 Protein (2-522 aa) is produced by E. coli expression system. This protein is fused with a 6xHis-SUMO tag at the N-terminal. Research Area: Signal Transduction. Protein Description: Full Length of Mature Protein. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | 2-522 aa |
| **Description** | Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. Within mTORC2, MAPKAP1 is required for complex formation and mTORC2 kinase activity. MAPKAP1 inhibits MAP3K2 by preventing its dimerization and autophosphorylation. Inhibits HRAS and KRAS signaling. Enhances osmotic stress-induced phosphorylation of ATF2 and ATF2- |

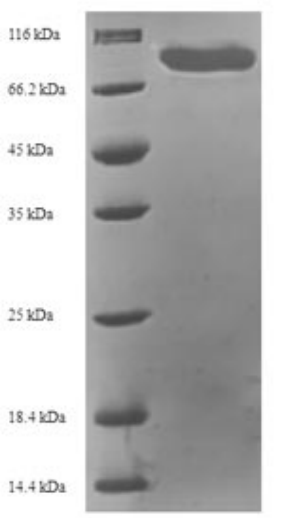
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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| | mediated transcription. Involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of mTORC2 complex. |
| **Form** | Tris-based buffer,50% glycerol |
| **Molecular Mass** | 75.0 kDa |
| **AA Sequence** | AFLDNPTIILAHIRQSHVTSDDTGMCEMVLIDHDVDLEKIHPPSMPGDSGSEIQGSNG ETQGYVYAQSVDITSSWDFGIRRRSNTAQRLERLRKERQNQIKCKNIQWKERNSKQ SAQELKSLFEKKSLKEKPPISGKQSILSVRLEQCPLQLNNPFNEYSKFDGKGHVGTT ATKKIDVYLPLHSSQDRLLPMTVVTMASARVQDLIGLICWQYTSEGREPKLNDNVSA YCLHIAEDDGEVDTDFPPLDSNEPIHKFGFSTLALVEKYSSPGLTSKESLFVRINAAH GFSLIQVDNTKVTMKEILLKAVKRRKGSQKVSGPQYRLEKQSEPNVAVDLDSTLESQ SAWEFCLVRENSSRADGVFEEDSQIDIATVQDMLSSHHYKSFKVSMIHRLRFTTDVQ LGISGDKVEIDPVTNQKASTKFWIKQKPISIDSDLLCACDLAEEKSPSHAIFKLTYLSN HDYKHLYFESDAATVNEIVLKVNYILESRASTARADYFAQKQRKLNRRTSFSFQKEK KSGQQ |
| **Purity** | > 90% as determined by SDS-PAGE. |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week. |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade. |
| **Concentration** | A hardcopy of COA with reconstitution instruction is sent along with the products. |

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## GENE INFORMATION

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| **Gene Name** | MAPKAP1 mitogen-activated protein kinase associated protein 1 [ Homo sapiens ] |
| **Official Symbol** | MAPKAP1 |
| **Synonyms** | MAPKAP1; MGC2745; MIP1; SIN1; mSIN1; TORC2 subunit MAPKAP1; JC310; SIN1b; SIN1g; |
| **Gene ID** | 79109 |
| **mRNA Refseq** | NM_001006617 |
| **Protein Refseq** | NP_001006618 |
| **MIM** | 610558 |
| **UniProt ID** | Q9BPZ7 |




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| | (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel. |

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