

## Rabbit Mnk1 Polyclonal Antibody | anti-Mnk1 antibody

Phospho-Mnk1 (Thr250/Thr255) Antibody

| CATALOG # | HOST   | REACTIVITY                                                                                                                                               | APPLICATIONS                              |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| AAA329488 | Rabbit | Human, Mouse<br>Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%) | ELISA, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

Mnk1; Polyclonal Antibody; Phospho-Mnk1 (Thr250/Thr255) Antibody; MAP kinase interacting kinase 1; MAP kinase interacting serine/threonine kinase 1; MAP kinase signal integrating kinase 1; MAP kinase signal-integrating kinase 1; MAP kinase-interacting serine/threonine-protein kinase 1; MAPK signal integrating kinase 1; MITOGEN-ACTIVATED PROTEIN KINASE-INTERACTING SERINE/THREONINE KINASE 1; mknk1; MKNK1\_HUMAN; MNK 1; anti-Mnk1 antibody

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                                                      |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                                                                                               |
| Reactivity                                     | Human, Mouse<br>Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)                                                                                             |
| Clonality                                      | Polyclonal                                                                                                                                                                                                                                           |
| Isotype                                        | Rabbit IgG                                                                                                                                                                                                                                           |
| Specificity                                    | Phospho-Mnk1 (Thr250/Thr255) Antibody detects endogenous levels of Mnk1 only when phosphorylated at Thr250/255.<br>Tissue Specificity: Ubiquitous.                                                                                                   |
| Purity/Purification                            | The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.                                                                                       |
| Form/Format                                    | Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                                                                                                             |
| Concentration                                  | 1mg/ml (varies by lot)                                                                                                                                                                                                                               |
| Applicable Applications for anti-Mnk1 antibody | ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                                                                 |
| Immunogen                                      | A synthesized peptide derived from human Mnk1 around the phosphorylation site of Thr250/255.                                                                                                                                                         |
| Conjugation                                    | Unconjugated                                                                                                                                                                                                                                         |
| Fragment                                       | Fab fragment                                                                                                                                                                                                                                         |
| Post Translational Modifications               | Dual phosphorylation of Thr-250 and Thr-255 activates the kinase. Phosphorylation of Thr-385 activates the kinase. MAPK3/ERK1 is one of the kinases which activate MKNK1/MNK1. Phosphorylation by PAK2 leads to a reduced phosphorylation of EIF4G1. |
| Subunit Structure                              | Interacts with the C-terminal regions of EIF4G1 and EIF4G2. Also binds to dephosphorylated ERK1 and ERK2, and to the p38 kinases.                                                                                                                    |
| Similarity                                     | Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.                                                                                                                                                                       |
| Subcellular Location                           | Cytoplasm. Cytoplasm. Nucleus.                                                                                                                                                                                                                       |
| Preparation and Storage                        | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                                                                                                                                    |

IMAGES



IHC (Immunohistochemisry)

At 1/100 staining Mouse colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)

Staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from NIH/3T3 serum-starved, using Phospho-Mnk1 (Thr250/255) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-Mnk1 antibody

May play a role in the response to environmental stress and cytokines. Appears to regulate translation by phosphorylating EIF4E, thus increasing the affinity of this protein for the 7-methylguanosine-containing mRNA cap.

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 207113186                                                                                                                          |
| NCBI GeneID                      | 8569                                                                                                                               |
| NCBI Accession #                 | NP_001129025.1                                                                                                                     |
| NCBI GenBank Nucleotide #        | NM_001135553.2                                                                                                                     |
| UniProt Accession #              | Q9BUB5; O00312; Q5TC06; Q5TC07; Q6V0N6; D3DQ20; D3DQ21                                                                             |
| Molecular Weight                 | 51,342 Da                                                                                                                          |
| NCBI Official Full Name          | MAP kinase-interacting serine/threonine-protein kinase 1 isoform 3                                                                 |
| NCBI Official Synonym Full Names | MAP kinase interacting serine/threonine kinase 1                                                                                   |
| NCBI Official Symbol             | MKNK1                                                                                                                              |
| NCBI Official Synonym Symbols    | MNK1                                                                                                                               |
| NCBI Protein Information         | MAP kinase-interacting serine/threonine-protein kinase 1; MAPK signal-integrating kinase 1; MAP kinase signal-integrating kinase 1 |
| UniProt Protein Name             | MAP kinase-interacting serine/threonine-protein kinase 1                                                                           |
| UniProt Gene Name                | MKNK1                                                                                                                              |
| UniProt Synonym Gene Names       | MNK1; MAPK signal-integrating kinase 1; Mnk1                                                                                       |
| UniProt Entry Name               | MKNK1_HUMAN                                                                                                                        |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.