

## Purified Rabbit Anti-MKK3

**Catalog Number:** TP364

**Lot Number:** 020716

**Content:** Protein A purified rabbit IgG, 200 µg, with 0.1% sodium azide, lyophilized.

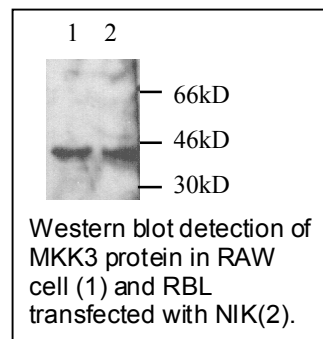
(Reconstitute to 1 mg/ml by adding 200 µl PBS)

**Product Description and Usage:** For research use only. This polyclonal antibody, which reacts with human MKK3, was generated using *E.coli*-expressed human full-length MKK3 as an immunogen. The antibody has been tested on Western blotting and immunoprecipitation assays. Suggested dilution: 1: 2,000.

Cross-reactivity to other kinases has not been determined.

**Storage Condition:** 4 C for short term storage or -20 C in small aliquots for long term storage. Avoid repeated freeze and thaw.

**Background:** MKK3 is a protein kinase that phosphorylates the p38 MAPK but not ERK MAPK. Phosphorylation by MKK3 occurs on threonine and tyrosine residues and increases the activity of p38 to stimulate transcription factors ATF2 and Elk-1. MKK3, together with MKK6,



serve as upstream regulators of p38 MAPK activation. A structural variant, MKK3b, has been identified that contains 29 more amino acids at its N-terminus.

### References:

1. Berijard, B. et al. (1995) Independent human MAP-kinase signal transduction pathways defined by MEK and MKK isoforms. *Science* 267:682-5.
2. Raingeaud, J. et al. (1996) MKK3- and MKK6-regulated gene expression is mediated by the p38 mitogen-activated protein kinase signal transduction pathway. *Mol Cell Biol.* 16:1247-55.
3. Moriguchi, T. et al. (1996) A novel kinase cascade mediated by mitogen-activated protein kinase kinase 6 and MKK3. *J. Biol. Chem.* 271:13675-9.
4. Han, J. et al. (1997) Identification and characterization of a predominant isoform of human MKK3. *FEBS Lett.* 403:19-22.