

## MPK5 Protein, Japonica rice, Recombinant (His & Myc)

### General Information

**Synonyms:** Mitogen-activated protein kinase 5; OsMSRMK2; MSRMK2; Benzothiadiazole-induced MAP kinase 1; OsMAPK5; OsMPK3; OsBIMK1; MAPK5; OsMAPK2; MPK5; MAP kinase 5; Multiple stress-responsive MAP kinase 2; MAPK2; MPK3; BIMK1; OsMAP1; MAP kinase 2

**Protein Construction:** 1-369 aa

**Species:** Rice

**Expression Host:** E. coli

**Accession:** Q10N20

**Molecular Weight:** 48.0 kDa (predicted)

**AA Sequence:** MDGAPVAEFRPTMTHGGRYLLYDIFGNKFEVTNKYQPPIMPPIGRGAYGIVCSVMNFETREMVAIKKIANAFNN DMDAKRTLREIKLLRHLHDHENIIGIRDVIPPIQAFNDVYIATELMDTDLHIIIRSNQELSEHCQYFLYQILRGL KYIHSANVIHRDLKPSNLLNANCDLKICDFGLARPSSSESDMMTEYVWTRWYRAPELLNSTDYSAIDVWSV GCIFMELINRQPLFPGRDHMHQMRLITEVIGTPTDDELGFIRNEDARKYMRHLPQYPRRTFASMFPRVQPAAL DLIERMLTFNPLQRITVEEALDHPYLERLHDIADPEPICLEPFSDFEQKALNEDQMKQLIFNEAIEMNPNIIRY

### QC Testing

**Biological Activity:** Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

**Purity:** > 85% as determined by SDS-PAGE.

**Endotoxin:** < 1.0 EU/μg of the protein as determined by the LAL method.

**Formulation:** Tris-based buffer, 50% glycerol

### Preparation and Storage

**Reconstitution:**

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Involved in disease resistance and abiotic stress tolerance signaling pathways. Acts as a positive regulator of

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drought, salt and cold tolerance. Negatively modulates pathogenesis-related (PR) gene expression and broad-spectrum disease resistance. Functions downstream of CPK18 in a signaling pathway that represses defense gene expression and negatively regulates resistance to rice blast fungus. Phosphorylated by CPK18 at Thr-14 and Thr-32 and activated independently of MAP kinase kinase (MKK) phosphorylation.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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