# **Recombinant Human MST2/STK3 Kinase**

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Catalog No.: RP03343LQ Recombinant

# **Sequence Information**

Species Gene ID Swiss Prot Human 6788 013188

Tags N-GST

**Synonyms** 

STK3; KRS1; MST2; Mammalian STE20like protein kinase 2; Serine/threonineprotein kinase 3

# **Product Information**

Source Purification

Baculovirus-Insect ≥ 80 % as

Cells determined by SDSPAGE;≥ 80 % as
determined by
HPLC.

Calculated MW Observed MW

82.8 kDa 60-85 kDa

### **Endotoxin**

< 1 EU/µg of the protein by LAL method.

### **Formulation**

Supplied as a 0.22 μm filtered solution in 50 mM Tris, 150 mM NaCl, 0.5 mM EDTA, 0.02% Triton® X-100, 2 mM DTT, 10% glycerol. (pH 7.5). Contact us for customized product form or formulation.

#### Reconstitution

Please use running water to thaw it quickly.

### Contact

<u>a</u>	400-999-6126
$\bowtie$	cn.market@abclonal.com.cn
•	www.abclonal.com.cn

# **Background**

Human serine/threonine-protein kinase 3 (STK3, or MST2) is a 56,301 Da monomer with three domains: a SARAH domain, composed of a long  $\alpha$ -helix at the C-terminus that when dimerized, forms an antiparallel dimeric coiled-coil, an inhibitory domain, and a catalytic kinase domain at the N-terminus. STK3 is activated through autophosphorylation by dimerizing with itself or heterodimerizing with its homolog, MST1 (STK4). In addition to activation by straurosporine and FAS ligand, STK3 has been found to be activated through dissociation of GLRX and Thioredoxin (Trx1) from STK3 under oxidative stress. In many types of cancers, the proto-oncogene c-Raf binds to the SARAH domain of MST2 and prevents RASSF1A-mediated MST2 dimerization and subsequent downstream pro-apoptotic signaling.

### **Basic Information**

#### Description

Recombinant Human MST2/STK3 Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Phe491) of Human STK3 (Accession #Q13188) fused with a N-GST tag.

#### **Bio-Activity**

The activity of MST2 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

## Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

#### **Storage**

Store at -70°C. This product is stable at  $\leq$  -70°C for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.

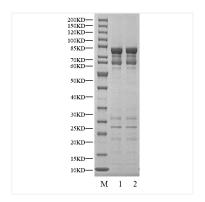
Aliquots below 10  $\mu\text{L}$  are not advisable. Product must not be stored in diluted solutions. Avoid repeated freeze-thaw cycles.

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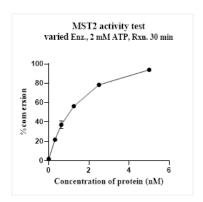
### **Operational Notes**

For your safety and health, please wear a lab coat and disposable gloves for handling.

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Recombinant Human MST2/STK3 Kinase was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



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