

Recombinant Human STK3 Protein (M1-F491), Tag Free

Cat. No. STK3-1231H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MST2(M1-F491 end) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	M1-F491
Description	Stress-activated, pro-apoptotic kinase which, following caspase-cleavage, enters the nucleus and induces chromatin condensation followed by internucleosomal DNA fragmentation. Key component of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ. Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. STK3/MST2 and STK4/MST1 are required to repress proliferation of mature hepatocytes, to prevent activation of facultative adult liver stem cells (oval cells), and to inhibit tumor formation. Phosphorylates NKX2-1. Phosphorylates NEK2 and plays a role in centrosome disjunction by regulating the localization of NEK2 to centrosome, and its ability to phosphorylate CROCC and CEP250. In conjunction with SAV1, activates the transcriptional activity of ESR1 through the modulation of its

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phosphorylation. Positively regulates RAF1 activation via suppression of the inhibitory phosphorylation of RAF1 on 'Ser-259'. Phosphorylates MOBKL1A and RASSF2. Phosphorylates MOBKL1B on 'Thr-74'. Acts cooperatively with MOBKL1B to activate STK38.

Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50mM Tris-HCl (pH 7.5), 200mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	STK3 serine/threonine kinase 3 [Homo sapiens (human)]
Official Symbol	STK3
Synonyms	STK3; serine/threonine kinase 3; serine/threonine kinase 3 (Ste20, yeast homolog); serine/threonine-protein kinase 3; KRS1; MST2; MST-2; STE20-like kinase MST2; mammalian STE20-like protein kinase 2; serine/threonine-protein kinase Krs-1; serine/threonine kinase 3 (STE20 homolog, yeast); FLJ90748;

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Gene ID	6788
mRNA Refseq	NM_001256312
Protein Refseq	NP_001243241
MIM	605030
UniProt ID	Q13188

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