

Recombinant Human STK3 Protein (M1-F491), GST tagged

Cat. No. STK3-1232H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GST-TEV-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,

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activates the transcriptional activity of ESR1 through the modulation of its 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;

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serine/threonine kinase 3 (STE20 homolog, yeast); FLJ90748;

Gene ID 6788**mRNA Refseq** NM_001256312**Protein Refseq** NP_001243241**MIM** 605030**UniProt ID** Q13188 Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA