

Active Recombinant Full Length Human STK11 Protein, Flag tagged

Cat. No. STK11-10HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant STK11 / LKB1 protein was expressed in a baculovirus expression system as the full length protein (accession number NP_000446.1) with an N-terminal FLAG tag. The molecular weight of the protein is 49.6 kDa.
Species	Human
Source	Insect Cells
ProteinLength	1-433 aa
Description	STK11 (Serine/Threonine Kinase 11) is a tumor suppressor serine/threonine-protein kinase that controls the activity of AMP-activated protein kinase (AMPK) family members and plays a role in various processes such as cell metabolism, cell polarity, apoptosis and DNA damage response. STK11 phosphorylates the T-loop of AMPK family proteins, thus promoting their activity. STK11 phosphorylates PRKAA1, PRKAA2, BRSK1, BRSK2, MARK1, MARK2, MARK3, MARK4, NUAK1, NUAK2, SIK1, SIK2, SIK3 and SNRK but not MELK and also phosphorylates non-AMPK family proteins such as STRADA, PTEN and possibly p53/TP53. STK11 acts as a key upstream regulator of AMPK by mediating phosphorylation and activation of AMPK catalytic subunits PRKAA1 and PRKAA2 and thereby regulates processes including: inhibition of signaling pathways that promote cell growth and proliferation when energy levels are low, glucose homeostasis in liver, activation of autophagy when cells undergo nutrient deprivation, and B-cell differentiation in the germinal center in

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	response to DNA damage.
Form	25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP
Molecular Mass	49.6 kDa
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 centigrade to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

GENE INFORMATION

Gene Name	STK11 serine/threonine kinase 11 [Homo sapiens (human)]
Official Symbol	STK11
Synonyms	STK11; serine/threonine kinase 11; serine/threonine kinase 11 (Peutz Jeghers syndrome); serine/threonine-protein kinase STK11; LKB1; PJS; polarization related protein LKB1; liver kinase B1; polarization-related protein LKB1; renal carcinoma antigen NY-REN-19; serine/threonine-protein kinase 11; serine/threonine-protein kinase LKB1; hLKB1
Gene ID	6794
mRNA Refseq	NM_000455
Protein Refseq	NP_000446
MIM	602216

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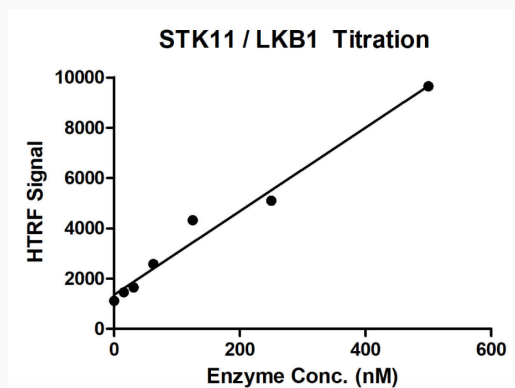
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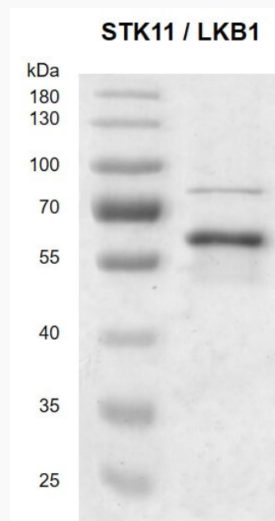
UniProt ID

Q15831

Activity



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