

# Recombinant Human STK40 Protein (His & GST Tag)

Catalog Number:PKSH030358



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

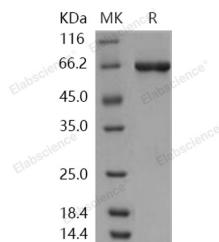
## Description

Synonyms	SgK495;SHIK
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Lys 435
Accession	NP_114406
Calculated Molecular Weight	76.8 kDa
Observed molecular weight	85 kDa
Tag	N-His-GST

## Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, 10% glycerol, 3mM DTT, 0.5M Urea, 0.5mM GSH, pH 8.0
Reconstitution	Not Applicable

## Data



> 97 % as determined by reducing SDS-PAGE.

## Background

STK40 localized to both the cytoplasm and the nucleus. It is ubiquitously expressed. Mechanistically, Stk40 interacts with Rcn2, which also activates Erk1/2 to induce ExEn specification in mouse ESCs. Stk40 is able to activate the Erk/MAPK pathway and induce extraembryonic-endoderm (ExEn) differentiation in mouse ESCs. Interestingly, cells overexpressing Stk40 exclusively contribute to the ExEn layer of chimeric embryos when injected into host blastocysts. In contrast, deletion of Stk40 in ESCs markedly reduces ExEn differentiation in vitro. STK40 has a central serine/threonine protein kinase domain and is homologous to TRB-3, a protein that regulates activation of MAP kinases and inhibits NF $\kappa$ B-mediated gene transcription. Similarly, overexpression of STK40 inhibits NF $\kappa$ B activation triggered by TNF and also inhibits p53-mediated transcription. There are four named isoforms of STK40 that are produced as a result of alternative splicing.

## For Research Use Only

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