

## Recombinant Human STK40 Protein (His & GST Tag)

Catalog No. PKSH030358

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

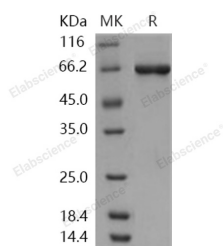
### Description

<b>Synonyms</b>	SgK495;SHIK
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Lys 435
<b>Accession</b>	NP_114406
<b>Calculated Molecular Weight</b>	76.8 kDa
<b>Observed molecular weight</b>	85 kDa
<b>Tag</b>	N-His-GST
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	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.
<b>Formulation</b>	Supplied as sterile solution of 20mM Tris, 500mM NaCl, 10% glycerol, 3mM DTT, 0.5M Urea, 0.5mM GSH, pH 8.0
<b>Reconstitution</b>	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

### For Research Use Only

kinase domain and is homologous to TRB-3, a protein that regulates activation of MAP kinases and inhibits NFκB-mediated gene transcription. Similarly, overexpression of STK40 inhibits NFκB 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.