Human STK40 Protein (His & GST Tag)

Catalog Number: **11597-H20B**

General Information

Gene Name Synonym:

SgK495; SHIK

Protein Construction:

A DNA sequence encoding the human STK40 (NP_114406) (Met1-Lys435) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human STK40 /GST chimera consists of 672 amino acids and has a calculated molecular mass of 76.8 kDa. The recombinant protein migrates as an approximately 85 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 10% glycerol, 3mM DTT, 0.5M Urea, 0.5mM GSH, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

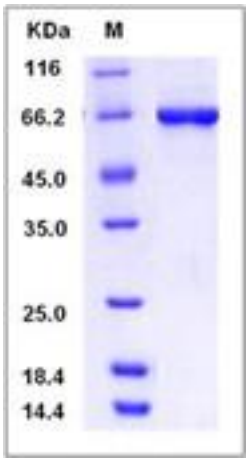
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 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.

References

1.Strausberg RL, *et al.* (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903. 2.Wiemann S, *et al.* (2001) Toward a catalog of human genes and proteins: sequencing and analysis of 500 novel complete protein coding human cDNAs. Genome Res. 11(3):422-35. 3.Hartley JL, *et al.* (2001) DNA cloning using in vitro site-specific recombination. Genome Res. 10(11): 1788-95.