

Recombinant Human Conserved Helix-Loop-Helix Ubiquitous Kinase, GST-tagged

Cat. No. CHUK-1004H Lot. No. (See product label)

SPECIFICATION

Product Overview	Full length recombinant human CHUK was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	CHUK is a serine/threonine protein kinase that phosphorylates the I-kappa-B protein which is an inhibitor of the transcription factor NF-kappa-B complex. Phosphorylation of I-kappa-B protein triggers the degradation of the inhibitor via the ubiquitination pathway, thereby activating NF-kappa-B complex. CHUK is an essential regulator of NF-kappa-B-dependent gene expression through control of promoter-associated histone phosphorylation after cytokine exposure. CHUK is a critical component of the cytoplasmic transductional-transcriptional processor leading to induction of IFN α production. CHUK is also involved in the epidermis where it antagonizes mitogenic and angiogenic signals and represses tumor progression and metastases.
Applications	Kinase Assay; Western Blot
Molecular Weight	114 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM

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	glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM pmsf, 25 % glycerol.
Specific Activity	2.5 nmol/min/mg
Purity	> 75 %
Concentration	0.1 ug/ul
Sequences	Full length
Storage	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	AKT phosphorylates targets in the cytosol; Activated TLR4 signalling; Acute myeloid leukemia; Adaptive Immunity Signaling; Adipocytokine signaling pathway; Alternative NF-kappaB pathway; Apoptosis; B Cell Receptor Signaling Pathway; BCR signaling pathway; Canonical NF-kappaB pathway; Chagas disease (American trypanosomiasis); Chemokine signaling pathway; Chronic myeloid leukemia; Class I PI3K signaling events mediated by Akt; Cytokine Signaling in Immune system
Full Length	Full L.

GENE INFORMATION

Gene Name	CHUK conserved helix-loop-helix ubiquitous kinase [Homo sapiens]
Official Symbol	CHUK
Synonyms	CHUK; conserved helix-loop-helix ubiquitous kinase; IKK1; IKKA; IKBKA; TCF16; NFKB1A; IKK-alpha; Inhibitor of nuclear factor kappa-B kinase subunit alpha;

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inhibitor of nuclear factor kappa-B kinase subunit alpha; TCF-16; IKK-a kinase; I-kappa-B kinase 1; OTTHUMP00000020273; I-kappa-B kinase-alpha; transcription factor 16; Ikb kinase alpha subunit; Nuclear factor NFkappaB inhibitor kinase alpha; I-kappa-B kinase alpha; IkappaB kinase; EC 2.7.11.10; Nuclear factor NF-kappa-B inhibitor kinase alpha

Gene ID [1147](#)

mRNA Refseq [NM_001278](#)

Protein Refseq [NP_001269](#)

MIM [600664](#)

UniProt ID [O15111](#)

Chromosome Location [10q24-q25](#)

Function ATP binding; IkappaB kinase activity; nucleotide binding; protein binding; protein kinase activity

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