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 IFNα 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, 15 0mM 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; NFKBIKA; 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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