

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

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

## SPECIFICATION

<b>Product Overview</b>	Full length recombinant human CHUK was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>Description</b>	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 $\alpha$ production. CHUK is also involved in the epidermis where it antagonizes mitogenic and angiogenic signals and represses tumor progression and metastases.
<b>Applications</b>	Kinase Assay; Western Blot
<b>Molecular Weight</b>	114 kDa
<b>Expression System</b>	Sf9 insect cells using baculovirus
<b>Form</b>	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.
<b>Specific Activity</b>	2.5 nmol/min/mg
<b>Purity</b>	> 75 %
<b>Concentration</b>	0.1 ug/ul
<b>Sequences</b>	Full length
<b>Storage</b>	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.
<b>Pathways</b>	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
<b>Full Length</b>	Full L.

## GENE INFORMATION

<b>Gene Name</b>	CHUK conserved helix-loop-helix ubiquitous kinase [ Homo sapiens ]
<b>Official Symbol</b>	CHUK
<b>Synonyms</b>	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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