

Recombinant Human Unc-51-Like Kinase 1 (C. elegans), GST-tagged, Active

Cat. No. ULK1-255H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ULK1 (1-649) was expressed by baculovirus in Sf9 insect cell using an N-terminal GST tag. MW = 125 kDa.
Species	Human
Source	Sf9 Cells
Protein Length	1-649 a.a.
Description	ULK1 is a serine/threonine protein kinase that plays critical role during initial stages of autophagy which is a vital response to nutrient starvation. The conserved C-terminal domain (CTD) of ULK1 controls the regulatory function and localization of the protein. Knockdown of ULK1 inhibits the autophagic response as well as inhibiting rapamycin-induced autophagy consistent with a role downstream of mTOR. ULK1 forms a complex with FIP200 and ATG13 and this complex is essential for starvation-induced autophagy. Both FIP200 and ATG13 are critical for correct localization of ULK1 to the pre-autophagosome and stability of ULK1 protein. ULK1 is phosphorylated by the mTOR pathway in a nutrient starvation-regulated manner.
Sequence	1-649.
Applications	Kinase Assay, Western Blot.
Storage And Stability	Store product at -70°C . For optimal storage, aliquot target into smaller quantities after

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centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

GENE INFORMATION

Gene Name	ULK1 unc-51-like kinase 1 (C. elegans) [Homo sapiens]
Synonyms	unc-51-like kinase 1 (C. elegans); ATG1; UNC51; Unc51.1; FLJ38455; FLJ46475; ULK1; Unc-51-like kinase 1; ATG1 autophagy related 1 homolog; EC 2.7.11.1; KIAA0722; unc-51 (C. elegans)-like kinase 1
Gene ID	8408
mRNA Refseq	NM_003565
Protein Refseq	NP_003556
MIM	603168
UniProt ID	O75385
Chromosome Location	12q24.3
Pathway	Regulation of autophagy; mTOR signaling pathway
Function	ATP binding; nucleotide binding; protein complex binding; protein serine/threonine kinase activity; transferase activity

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