

Recombinant Human ULK1 protein, FLAG-tagged

Cat. No. ULK1-568H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ULK1(2-end) fused with FLAG tag at N-terminal was expressed in FreeStyle 293-F cells.
Species	Human
Source	HEK293
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.
Form	Aqueous buffer solution
Molecular Mass	113 kDa
Purity	0.4
Applications	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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Stability >6 months at -80 centigrade. Avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name ULK1 unc-51-like kinase 1 (C. elegans) [Homo sapiens]

Official Symbol ULK1

Synonyms ULK1; unc-51-like kinase 1 (C. elegans); unc 51 (C. elegans) like kinase 1; serine/threonine-protein kinase ULK1; ATG1; ATG1 autophagy related 1 homolog (S. cerevisiae); ATG1A; ATG1 autophagy related 1 homolog; autophagy-related protein 1 homolog; UNC51; hATG1; Unc51.1; FLJ38455; FLJ46475;

Gene ID 8408

mRNA Refseq NM_003565

Protein Refseq NP_003556

MIM 603168

UniProt ID O75385

Chromosome Location 12q24.3

Pathway Regulation of autophagy, organism-specific biosystem; Regulation of autophagy, conserved biosystem; Senescence and Autophagy, organism-specific biosystem; mTOR signaling pathway, organism-specific biosystem; mTOR signaling pathway, conserved biosystem;

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Function

ATP binding; nucleotide binding; protein binding; protein complex binding; protein serine/threonine kinase activity; protein serine/threonine kinase activity;

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