Recombinant Mouse Ikbke Protein, Myc/DDK-tagged

Cat. No. Ikbke-3497M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length inhibitor of kappaB kinase epsilon (cDNA clone MGC:46849 IMAGE:3980145), complete cds, with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Serine/threonine kinase that plays an essential role in regulating inflammatory responses to viral infection, through the activation of the type I IFN, NF-kappa-B and STAT signaling. Also involved in TNFA and inflammatory cytokines, like Interleukin-1, signaling. Following activation of viral RNA sensors, such as RIG-I-like receptors, associates with DDX3X and phosphorylates interferon regulatory factors (IRFs), IRF3 and IRF7, as well as DDX3X. This activity allows subsequent homodimerization and nuclear translocation of the IRF3 leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNB. In order to establish such an antiviral state, IKBKE forms several different complexes whose composition depends on the type of cell and cellular stimuli. Thus, several scaffolding molecules including IPS1/MAVS, TANK, AZI2/NAP1 or TBKBP1/SINTBAD can be recruited to the IKBKE-containing-complexes. Activated by polyubiquitination in response to TNFA and interleukin-1, regulates the NF-kappa-B signaling pathway through, at least, the phosphorylation of CYLD. Phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor. In addition, is also required for the induction of a subset of ISGs which

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	displays antiviral activity, may be through the phosphorylation of STAT1 at 'Ser-708'. Phosphorylation of STAT1 at 'Ser-708' seems also to promote the assembly and DNA binding of ISGF3 (STAT1:STAT2:IRF9) complexes compared to GAF (STAT1:STAT1) complexes, in this way regulating the balance between type I and type II IFN responses. Protects cells against DNA damage-induced cell death. Also plays an important role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, wich leads to a negative impact on insulin sensitivity. Phosphorylates AKT1.
Molecular Mass	107.5 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Ikbke inhibitor of kappaB kinase epsilon [Mus musculus (house mouse)]
Official Symbol	Ikbke
Synonyms	Ikbke; inhibitor of kappaB kinase epsilon; IKK; Ikki; IKK-E; IKK-i; AW558201; IKKepsilon; inhibitor of nuclear factor kappa-B kinase subunit epsilon; I-kappa-B kinase epsilon; IKK-epsilon; inducible I kappa-B kinase; inducible IKappaB kinase;

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	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon; EC 2.7.11.10
Gene ID	56489
mRNA Refseq	NM_019777
Protein Refseq	NP_062751
UniProt ID	Q9R0T8

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