Recombinant Human NFKB1

Cat. No. NFKB1-105H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Full-length recombinant human NFkB p50 subunit cDNA (2 - 433aa, derived from BC051765) was constructed with codon optimization with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal.
Species	Human
Source	E.coli
Description	This gene encodes a 105 kD protein which can undergo cotranslational processing by the 26S proteasome to produce a 50 kD protein. The 105 kD protein is a Rel protein-specific transcription inhibitor and the 50 kD protein is a DNA binding subunit of the NF-kappa-B (NFKB) protein complex. NFKB is a transcription regulator that is activated by various intra- and extra-cellular stimuli such as cytokines, oxidant-free radicals, ultraviolet irradiation, and bacterial or viral products. Activated NFKB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFKB has been associated with a number of inflammatory diseases while persistent inhibition of NFKB leads to inappropriate immune cell development or delayed cell growth. Two transcript variants encoding different isoforms have been found for this gene.
Form	0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
AA Sequence	MASMTGGQQMGRGHHHHHHGNLYFQGGEFAEDDPYLGRPEQMFHLDPSLTHTIF

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	NPEVFQPQMALPTADGPYLQI LEQPKQRGFRFRYVCEGPSHGGLPGASSEKNKKS YPQVKICNYVGPAKVIVQLVTNGKNIHLHAHSLVGKHCEDG ICTVTAGPKDMVVGFA NLGILHVTKKKVFETLEARMTEACIRGYNPGLLVHPDLAYLQAEGGGDRQLGDREKE LI RQAALQQTKEMDLSVVRLMFTAFLPDSTGSFTRRLEPVVSDAIYDSKAPNASNLKI VRMDRTAGCVTGGEEIYLL CDKVQKDDIQIRFYEEEENGGVWEGFGDFSPTDVHR QFAIVFKTPKYKDINITKPASVFVQLRRKSDLETSEPKP FLYYPEIKDKEEVQRKRQK LMPNFSDSFGGGSGAGAGGGGMFGSGGGGGGTGSTGPGYSFPHYGFPTYGGITF HP GTTKSNAGMKHG
Purity	> 90% by SDS-PAGE.
Applications	1. May be used for in vitro human NFkB functional regulations study using NFkB p50 subunit protein mediated intracellular delivery. 2. May be used as specific substrate protein for kinase and ubiquitin related enzyme functional screening assays. 3. May be used as antigen for specific antibody production.
Storage	In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

GENE INFORMATION

Gene Name	NFKB1 nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 [Homo sapiens (human)]
Official Symbol	NFKB1
Synonyms	NFKB1; p50; KBF1; p105; EBP-1; NF-kB1; NFKB-p50; NFkappaB; NF-kappaB; NFKB-p105; NF-kappa-B; nuclear factor of kappa light polypeptide gene enhancer in B-cells 1; nuclear factor NF-kappa-B p105 subunit; NF-kappabeta; DNA binding factor KBF1; DNA-binding factor KBF1; nuclear factor NF-kappa-B p50 subunit; nuclear

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	factor kappa-B DNA binding subunit
Gene ID	4790
mRNA Refseq	NM_003998
Protein Refseq	NP_003989
MIM	164011
UniProt ID	P19838
Chromosome Location	4q24
Pathway	AGE/RAGE pathway; Activation of NF-kappaB in B Cells; Adaptive Immune System
Function	double-stranded DNA binding; heat shock protein binding; nucleic acid binding transcription factor activity

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