

## Product datasheet for TP526792

### Nfkb1 (NM\_008689) Mouse Recombinant Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Mouse nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 (Nfkb1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
<b>Species:</b>	Mouse
<b>Expression Host:</b>	HEK293T
<b>Expression cDNA</b>	>MR226792 protein sequence
<b>Clone or AA Sequence:</b>	Red=Cloning site Green=Tags(s)

MADDDPYGTGQMFHLNLTALHSIFNAELYSPEIPLSTDGPYLQILEQPKQRGFRFRYVCEGPSHGGLPGA  
SSEKNKKSYPQVKICNYVGPAAKIVVQLVTNGKNIHLHAHSLVKGKCEDGVCTVTAGPKDMVVGAFANLIL  
HVTKKKVFETLEARMTEACIRGYNPGLLVHSDLAYLQAEAGGDRQLTDREKEIRQAAVQQTKEMDLSV  
RLMFTAFLPDSTGSFTRRLEPVSDAIYDSKAPNASNLKIVRMDRTAGCVTGGEEIYLLCDKVQKDDIQI  
RFYEEEEENGWEGFGDFSPDTHRQFAIVFKTPKYKDVNITKPASVAVQLRRKSDLETSEPKPFLYYPE  
IKDKEEVQRKRQKLMFNFSDFGGGSGAGAGGGGMFGSGGGGGSTGSPGPGYGYSNYGFPPYGGITFHPG  
VTKSNAGVTHGTINTKFKNGPKDCAKSDDEESLTLPEKETEGEGPSLPMACKTEPIALASTMEDKEQDM  
GFQDNLFLKALQLARRHANALFDYAVTGDVKMLLAVQRHLTAVQDENGDSVLHLAIIHLHAQLVRDLLE  
VTSGLISDDIINMRNDLYQTPLHLAVITKQEDVVEDLLRVGADLSLLDRWGNVSLHLAAKEGHDRILSIL  
LKSRKAAPLIDHPNGEGLNIAIHVMSNSLPCLLLLVAAGAEVNAQEQKSGRTALHLAVEYDNISLAGCL  
LLEGDAHVDSTTYDGTPLHIAAGRGSTRLAALLKAAGADPLVENFEPLYDLDDSWEKAGEDEGVPGTT  
PLDMAANWQVFDILNGKPYEPVFTSDDILPQGDMKQLTEDTRLQLCKLLEIPDPDNWATLAQKLGIL  
NNAFRLSPAPSKTLMNDYEVSGGTIKELMEALQOMGYTEAIEVIQAAFRTATTASSPVTTAQVHCLPLS  
SSSTRQHIDELRSDSVCDSDGVETSFRKLSFTESLTGDSPLLSLNKMPHGYGQEGPIEGKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

<b>Tag:</b>	C-MYC/DDK
<b>Predicted MW:</b>	105.6 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

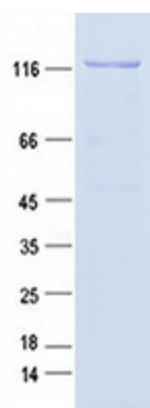


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<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_032715</a>
<b>Locus ID:</b>	18033
<b>UniProt ID:</b>	<a href="#">P25799</a>
<b>RefSeq Size:</b>	4128
<b>Cytogenetics:</b>	3 62.82 cM
<b>RefSeq ORF:</b>	2916
<b>Synonyms:</b>	NF-kappaB; NF-kappaB1; NF-KB1; p50; p50/p105; p105

**Summary:**

NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52 and the heterodimeric p65-p50 complex appears to be most abundant one. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. NF-kappa-B heterodimeric p65-p50 and RelB-p50 complexes are transcriptional activators. The NF-kappa-B p50-p50 homodimer is a transcriptional repressor, but can act as a transcriptional activator when associated with BCL3. NFKB1 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p105 and generation of p50 by a cotranslational processing. The proteasome-mediated process ensures the production of both p50 and p105 and preserves their independent function, although processing of NFKB1/p105 also appears to occur post-translationally. p50 binds to the kappa-B consensus sequence 5'-GGRNNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions. Plays a role in the regulation of apoptosis. Isoform 5, isoform 6 and isoform 7 act as inhibitors of transactivation of p50 NF-kappa-B subunit, probably by sequestering it in the cytoplasm. Isoform 3 (p98) (but not p84 or p105) acts as a transactivator of NF-kappa-B-regulated gene expression. In a complex with MAP3K8, NFKB1/p105 represses MAP3K8-induced MAPK signaling; active MAP3K8 is released by proteasome-dependent degradation of NFKB1/p105.[UniProtKB/Swiss-Prot Function]

**Product images:**

Purified recombinant protein Nfkb1 was analyzed by SDS-PAGE gel and Coomassie Blue Staining.