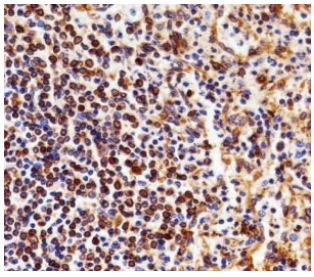
NFKB1 Antibody [clone 1298CT792.105.117.133] (F52441)

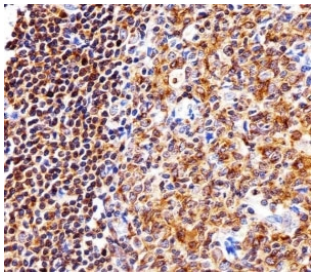
Catalog No.	Formulation	Size
F52441-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52441-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

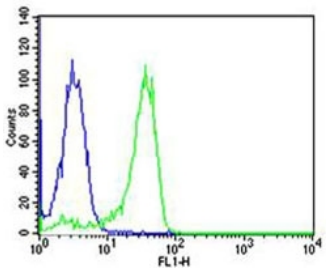
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, k
Clone Name	1298CT792.105.117.133
Purity	Purified
UniProt	P19838
Applications	Flow Cytometry : 1:25 IHC (Paraffin) : 1:25 Western Blot : 1:1000
Limitations	This NFKB1 antibody is available for research use only.



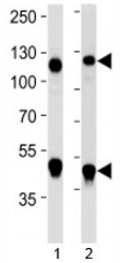
Immunohistochemical analysis of paraffin-embedded human spleen using NFKB1 antibody at 1:25 dilution.



Immunohistochemical analysis of paraffin-embedded human tonsil section using NFKB1 antibody at 1:25 dilution.



Flow cytometric analysis of HeLa cells using NFKB1 antibody (green) and an isotype control of mouse IgG1 (blue); Ab was diluted at 1:25 dilution.



Western blot analysis of lysate from 1) Daudi and 2) Jurkat cell line using NFKB1 antibody at 1:1000. Expected molecular weight: 50 kDa / 105 kDa.

Description

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. NFkB is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NFkB complexes are held in the cytoplasm in an inactive state complexed with members of the NFkB inhibitor (I-kappa-B) family. In a conventional activation pathway, IkB is phosphorylated by IkB kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NFkB complex which translocates to the nucleus. NF-kappa-B heterodimeric p65-p50 and RelB-p50 complexes are transcriptional activators. The NFkB 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 NFkB 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. In a complex with MAP3K8, NFKB1/p105 represses MAP3K8-induced MAPK signaling; active MAP3K8 is released by proteasome-dependent degradation of NFKB1/p105.

Application Notes

Titration of the NFKB1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This NFKB1 antibody was produced from a mouse immunized with a recombinant protein from human NFKB1.

Storage

Aliquot the NFKB1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.