

## Product datasheet for **TA384860S**

### **NFkB p100 / p52 (NFKB2) Rabbit Monoclonal Antibody [Clone ID: R01-8B2]**

#### **Product data:**

|                         |  |
|-------------------------|--|
| Product Type:           | Primary Antibodies   |
| Clone Name:             | R01-8B2  |
| Applications:           | IF, IP, WB   |
| Recommended Dilution:   | WB: 1/2000-1/10000<br>ICC/IF: 1/50<br>IP: 1/20   |
| Reactivity:             | Human, Mouse   |
| Host:                   | Rabbit   |
| Isotype:                | IgG  |
| Clonality:              | Monoclonal   |
| Immunogen:              | A synthetic peptide of human NFkB p100/NFKB2   |
| Formulation:            | 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA    |
| Concentration:          | lot specific   |
| Purification:           | Affinity Purified  |
| Conjugation:            | Unconjugated   |
| Storage:                | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| Stability:              | 1 year   |
| Predicted Protein Size: | Calculated MW: 97 kDa; Observed MW: 120 kDa  |
| Gene Name:              | nuclear factor kappa B subunit 2   |
| Database Link:          | <a href="#">Entrez Gene 4791 Human Q00653</a>  |



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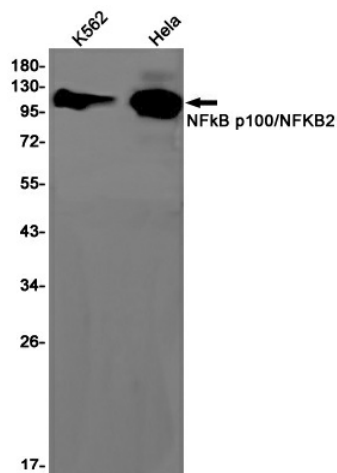
**Background:**

Swiss-Prot Acc.Q00653.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. 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. In a non-canonical activation pathway, the MAP3K14-activated CHUK/IKKA homodimer phosphorylates NFKB2/p100 associated with RelB, inducing its proteolytic processing to NFKB2/p52 and the formation of NF-kappa-B RelB-p52 complexes. The NF-kappa-B heterodimeric RelB-p52 complex is a transcriptional activator. The NF-kappa-B p52-p52 homodimer is a transcriptional repressor. NFKB2 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p100 and generation of p52 by a cotranslational processing. The proteasome-mediated process ensures the production of both p52 and p100 and preserves their independent function. p52 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. p52 and p100 are respectively the minor and major form; the processing of p100 being relatively poor. Isoform p49 is a subunit of the NF-kappa-B protein complex, which stimulates the HIV enhancer in synergy with p65. In concert with RELB, regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-ARNTL/BMAL1 heterodimer.

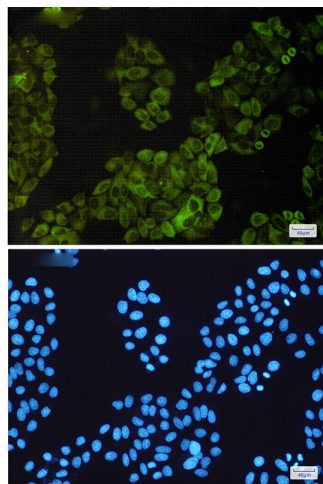
**Synonyms:**

H2TF1; LYT-10; LYT10; OTTHUMP00000020371; p52

## Product images:



Western blot analysis of NF-KB p100/NF-KB2 in K562, HeLa lysates using NF-KB p100 antibody.



Immunocytochemistry analysis of NF-KB p100/NF-KB2(green) in HeLa using NF-KB p100/NF-KB2 antibody, and DAPI(blue)