NFκB-p100 (PT0571R) PT™ Rabbit mAb

CatalogNo: YM8386 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat,

Applications
- WB,IF,IP,ELISA

MW
- 97kD (Calculated)
120kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT0571R

Immunogen Information

Specificity	Endogenous

Target Information

Gene name	NFKB2
Protein Name	Nuclear factor NF-kappa-B p100 subunit

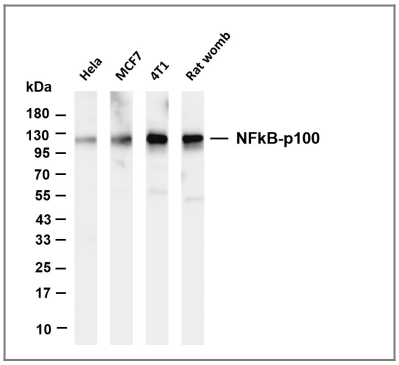
Organism	Gene ID	UniProt ID
Human	4791;	Q00653;
Mouse	18034;	Q9WTK5;

Cellular Localization	Cytoplasm, Nucleus
Tissue specificity	Leukemia,Lymph,Thymus,

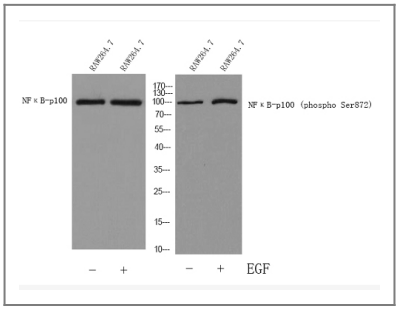
Function

Disease:A chromosomal aberration involving NFKB2 is found in a case of B-cell non Hodgkin lymphoma (B-NHL). Translocation t(10;14)(q24;q32) with IGHA1. The resulting oncogene is also called Lyt-10C alpha variant.,Disease:A chromosomal aberration involving NFKB2 is found in a cutaneous T-cell leukemia (C-TCL) cell line. This rearrangement produces the p80HT gene which encodes for a truncated 80 kDa protein (p80HT).,Disease:In B-cell leukemia (B-CLL) cell line, LB40 and EB308, can be found after heterogeneous chromosomal aberrations, such as internal deletions.,Domain:The C-terminus of p100 might be involved in cytoplasmic retention, inhibition of DNA-binding by p52 homodimers, and/or transcription activation.,Domain:The glycine-rich region (GRR) appears to be a critical element in the generation of p52.,Function:NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in many biological processed 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.,PTM:Constitutive processing is tightly suppressed by its C-terminal processing inhibitory domain, named PID, which contains the death domain.,PTM:Subsequent to MAP3K14-dependent serine phosphorylation, p100 polyubiquitination occurs then triggering its proteasome-dependent processing.,PTM:While translation occurs, the particular unfolded structure after the GRR repeat promotes the generation of p52 making it an acceptable substrate for the proteasome. This process is known as cotranslational processing. The processed form is active and the unprocessed form acts as an inhibitor (I kappa B-like), being able to form cytosolic complexes with NF-kappa B, trapping it in the cytoplasm. Complete folding of the region downstream of the GRR repeat precludes processing.,similarity:Contains 1 death domain.,similarity:Contains 1 RHD (Rel-like) domain.,similarity:Contains 7 ANK repeats.,subcellular location:Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B).,subunit:Component of the NF-kappa-B RelB-p52 complex. Homodimer; component of the NF-kappa-B p52-p52 complex. Component of the NF-kappa-B p65-p52 complex. Component of the NF-kappa-B p52-c-Rel complex. NFKB2/p52 interacts with NFKBIE. Component of a complex consisting of the NF-kappa-B p50-p50 homodimer and BCL3.,

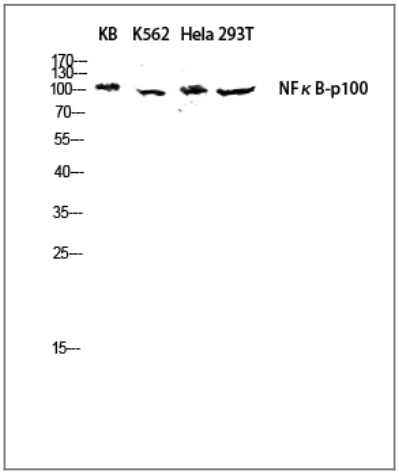
Validation Data



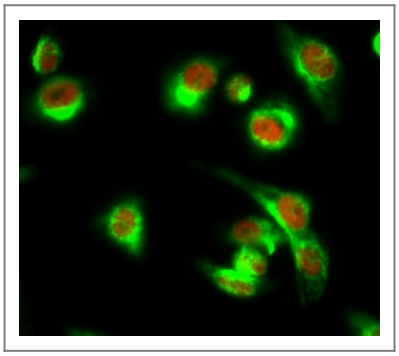
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-NFkB p100 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: MCF7 Lane 3: 4T1 Lane 4: Rat womb Predicted band size: 97kDa Observed band size: 120kDa



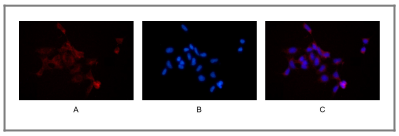
Western blot analysis of lysates from RAW264.7 cells treated with EGF 200ng/ml 30', using NF-kappaB p100 Antibody. Primary Antibody was diluted at 1:1000 4° over night,secondary antibody(Immunoway cat:RS23920)was diluted at 1:10000, 37° 1hour.



Western blot analysis of KB K562 Hela 293T lysis using NFκB-p100 antibody. Antibody was diluted at 1:1000



Immunofluorescence analysis of Hela cell. 1,NFκB-p100 Antibody(red) was diluted at 1:200(4° overnight). ATG5 mouse Monoclonal Antibody(3C7)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



Immunofluorescence analysis of HEK293. Picture A: NFkB p100 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

Contact information

Orders: order@immunoway.com
Support: tech@immunoway.com
Telephone: 877-594-3616 (Toll Free), 408-747-0185
Website: http://www.immunoway.com
Address: 2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information:
NFκB-p100 (PT0571R) PT™ Rabbit mAb