


Anti-NFkB p105 / p50 antibody [ABM20H5] - N-terminal ab210924

敲除 验证

2 图像

概述

产品名称	Anti-NFkB p105 / p50抗体[ABM20H5] - N-terminal
描述	小鼠单克隆抗体[ABM20H5] to NFkB p105 / p50 - N-terminal
宿主	Mouse
经测试应用	适用于: WB
种属反应性	与反应: Human 预测可用于: Mouse, Dog 
免疫原	Recombinant fragment corresponding to Human NFkB p105/ p50 aa 1-200 (N terminal). Database link: P19838 Run BLAST with Run BLAST with
阳性对照	THP1, Ramos, Jurkat and Raji lysates.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.05% BSA
纯度	Protein G purified
克隆	单克隆

克隆编号	ABM20H5
同种型	IgG1
轻链类型	kappa

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab210924于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 105 kDa.

靶标

功能

NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in 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. In a complex with MAP3K8, NFKB1/p105 represses MAP3K8-induced MAPK signaling; active MAP3K8 is released by proteasome-dependent degradation of NFKB1/p105.

序列相似性

Contains 7 ANK repeats.
 Contains 1 death domain.
 Contains 1 RHD (Rel-like) domain.

结构域

The C-terminus of p105 might be involved in cytoplasmic retention, inhibition of DNA-binding, and transcription activation.
 Glycine-rich region (GRR) appears to be a critical element in the generation of p50.

翻译后修饰

While translation occurs, the particular unfolded structure after the GRR repeat promotes the generation of p50 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.

Phosphorylation at 'Ser-903' and 'Ser-907' primes p105 for proteolytic processing in response to TNF-alpha stimulation. Phosphorylation at 'Ser-927' and 'Ser-932' are required for BTRC/BTRCP-mediated proteolysis.

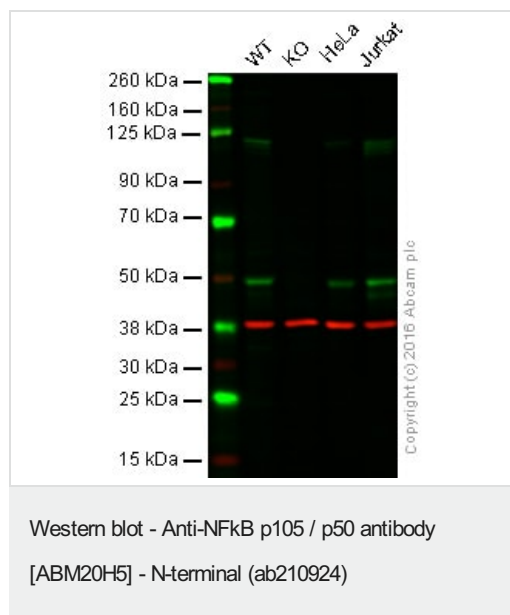
Polyubiquitination seems to allow p105 processing.

S-nitrosylation of Cys-61 affects DNA binding.

细胞定位

Nucleus. Cytoplasm. Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor.

图片



Lane 1: Wild-type HAP1 cell lysate (20 μg)

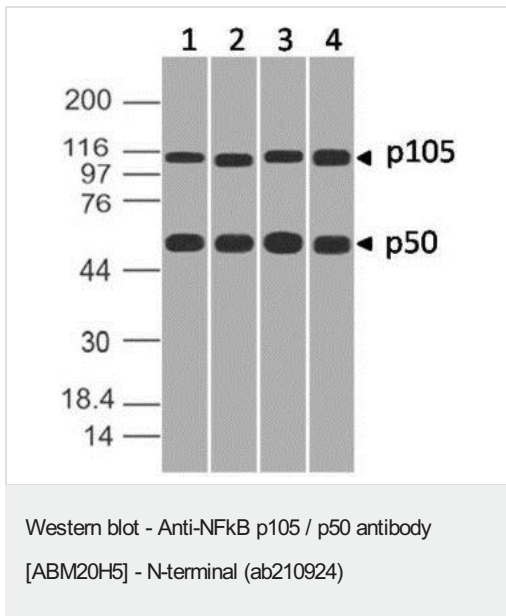
Lane 2: NFκB p105/p50 knockout HAP1 cell lysate (20 μg)

Lane 3: HeLa cell lysate (20 μg)

Lane 4: Jurkat cell lysate (20 μg)

Lanes 1 - 4: Merged signal (red and green). Green - ab210924 observed at 50 and 120 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab210924 was shown to specifically react with NFκB p105/p50 when NFκB p105/p50 knockout samples were used. Wild-type and NFκB p105/p50 knockout samples were subjected to SDS-PAGE. ab210924 and **ab181602** (loading control to GAPDH) were diluted 1 μg/mL and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed **ab216772** and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed **ab216777** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-NFkB p105 / p50 antibody [ABM20H5] - N-terminal (ab210924) at 1 µg/ml

Lane 1 : THP1 lysate

Lane 2 : Ramos lysate

Lane 3 : Jurkat lysate

Lane 4 : Raji lysate

Predicted band size: 105 kDa

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