abcam

Product datasheet

HRP Anti-NFkB p105 / p50 antibody [E381] ab195854

KO 評価済 リコンビナント RabMAb

3 References 画像数 3

製品の概要

製品名	HRP Anti-NFkB p105 / p50 antibody [E381]
製品の詳細	HRP Rabbit monoclonal [E381] to NFkB p105 / p50
由来種	Rabbit
標識	HRP
アプリケーション	**適用あり:** WB
種交差性	**交差種:** Human **交差が予測される動物種:** Mouse, Rat
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HeLa whole cell lysate.
特記事項	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
バッファー	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	E381
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee	**Abpromise保証は、** 次のテスト済みアプリケーションにおけるab195854の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/2000. Detects a band of approximately 50, 105 kDa (predicted molecular weight: 50 kDa).

ターゲット情報

機能

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 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.

配列類似性

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

ドメイン

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.

翻訳後修飾

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.

細胞内局在

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

画像

Western blot - HRP Anti-NFkB p105 / p50 antibody [E381] (ab195854)

All lanes : HRP Anti-NFkB p105 / p50 antibody [E381] (ab195854) at 1/2000 dilution

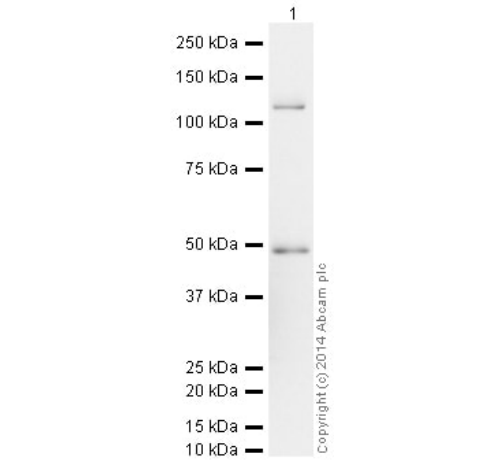
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : Nfkb1 (NFkB p105 / p50) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 50 kDa
Observed band size: 105,50 kDa

Exposure time: 20 minutes

ab195854 was shown to recognize NFkB p105 / p50 in wild-type HAP1 cells as signal was lost at the expected MW in Nfkb1 (NFkB p105 / p50) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Nfkb1 (NFkB p105 / p50) knockout samples were subjected to SDS-PAGE. Ab195854 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/2000 dilution and 1/1000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-NFkB p105 / p50 antibody [E381] (ab195854)

HRP Anti-NFkB p105 / p50 antibody [E381] (ab195854) at 1/2000 dilution + HeLa whole cell lysate (**ab150035**) at 10 µg

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 50 kDa
Observed band size: 105,50 kDa

Exposure time: 20 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab195854 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

HRP Anti-NFkB p105 / p50 antibody [E381]

(ab195854)

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