

Datasheet for ABIN967610
anti-NFkB antibody (pSer529)

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Overview

| | |
|----------------------|---|
| Quantity: | 0.1 mg |
| Target: | NFkB |
| Binding Specificity: | pSer529 |
| Reactivity: | Human |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This NFkB antibody is un-conjugated |
| Application: | Western Blotting (WB), Intracellular Staining (ICS) |

Product Details

| | |
|------------------|--|
| Brand: | BD Pharmingen™ |
| Immunogen: | Phosphorylated Human NF-kappaB p65 Peptide |
| Clone: | K10-895-12-50 |
| Isotype: | IgG2b kappa |
| Characteristics: | <ol style="list-style-type: none">1. Please refer to us for technical protocols.2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. |
| Purification: | The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. |

Target Details

| | |
|-------------------|--|
| Target: | NFkB |
| Alternative Name: | NF-kappa B (NFkB Products) |
| Background: | <p>Nuclear factor kB (NF-kB) is a ubiquitously expressed transcription factor that regulates the expression of 200-300 genes. It is crucial for basic cellular responses to stress and pathogens, such as proliferation, survival, development, and apoptosis. The most studied NF-kB complex consists of the p50 (also known as NF-kB1) and p65 (also known as REL-A) subunits, both containing a 300-amino acid region with homology to the Rel proto-oncogene product (RH domain). The RH domain contains motifs for dimerization, nuclear localization, and binding to specific DNA sequences. In addition to the RH domain, the p65 subunit contains the transactivation domain, which is responsible for the interaction with the inhibitor IkB and which contains phosphorylation sites. In most cell types, the p50/p65 heterodimer is located within the cytoplasm complexed to IkB. This complex prevents nuclear translocation and activity of NF-kB. In response to stimuli such as cytokines, LPS, DNA damage, and viral infections, IkB is phosphorylated at critical residues. This phosphorylation induces dissociation of the IkB/NF-kB complex, allowing the free heterodimeric NF-kB to translocate to the nucleus. Furthermore, optimal activation of NF-kB requires phosphorylation in the transactivation domain of p65. In the nucleus, activated NF-kB dimers bind to the kB sites within promoters and enhancers and function as transcriptional activators. The K10-895.12.50 monoclonal antibody recognizes the phosphorylated serine 529 (pS529) in the transactivation domain of human NF-kB p65 subunit.</p> |
| Molecular Weight: | 65 kDa |
| Pathways: | Ubiquitin Proteasome Pathway , S100 Proteins |

Application Details

| | |
|---------------|------------------------------|
| Comment: | Related Products: ABIN967389 |
| Restrictions: | For Research Use only |

Handling

| | |
|--------------------|---|
| Format: | Liquid |
| Concentration: | 0.5 mg/mL |
| Buffer: | Aqueous buffered solution containing ≤0.09 % sodium azide. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which |

Handling

should be handled by trained staff only.

Storage: 4 °C

Storage Comment: Store undiluted at 4°C.

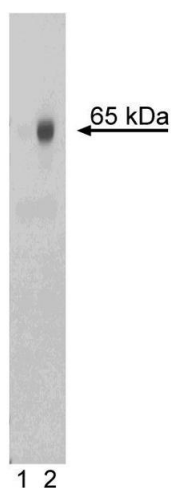
Publications

Product cited in: Natoli, Saccani, Bosisio, Marazzi: "Interactions of NF-kappaB with chromatin: the art of being at the right place at the right time." in: **Nature immunology**, Vol. 6, Issue 5, pp. 439-45, (2005) ([PubMed](#)).

Siebenlist, Brown, Claudio: "Control of lymphocyte development by nuclear factor-kappaB." in: **Nature reviews. Immunology**, Vol. 5, Issue 6, pp. 435-45, (2005) ([PubMed](#)).

Viatour, Merville, Bours, Chariot: "Phosphorylation of NF-kappaB and IkappaB proteins: implications in cancer and inflammation." in: **Trends in biochemical sciences**, Vol. 30, Issue 1, pp. 43-52, (2005) ([PubMed](#)).

Images



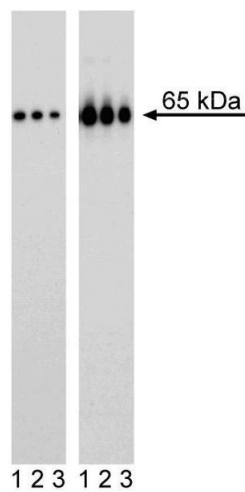
Western Blotting

Image 1. Western blot analysis of NF-kappaB p65 (pS529) in human peripheral blood mononuclear cells (PBMC). Lysates from control ((lane 1) and PMA-treated (lane 2) PBMC were probed with purified mouse anti-NF-kappaB p65 (pS529) monoclonal antibody at 2.0 µg/ml. NF-kappaB p65 (pS529) is identified as a band of 65 kDa in the treated cells.

Image 2.

The purified or conjugated mAb was characterized by flow cytometry (Flow) and western blot (WB) using these model systems:

| Method | Species | Cells | Treatment | Fixation | Perm buffer | Result |
|--------|---------|---------|--------------------------|----------|--------------------|------------------------|
| Flow | Human | PBMC | PMA | Cytofix | Perm I, II, or III | Upregulated expression |
| | | HeLa S3 | TNF + Calyculin A | Cytofix | Perm III | Upregulated expression |
| | | PBMC | PMA | | | 65-kDa band induced |
| WB | Human | HeLa | TNF | | | 65-kDa band induced |
| | | HeLa | TNF + Lambda phosphatase | | | loss of signal |



Western Blotting

Image 3. Western blot analysis of NF-kappaB p65 (pS529) in transformed human epithelioid carcinoma. Lysates from control (first panel) and TNF-treated (second panel) HeLa cell line were probed with purified mouse anti-NF-kappaB p65 (pS529) monoclonal antibody at concentrations of 0.0125, 0.00625 and 0.00312 µg/ml (Lanes 1, 2, and 3, respectively). NF-kappaB p65 (pS529) is identified as a band of 65 kDa, which is upregulated in the treated cells.