

## Technical Data Sheet

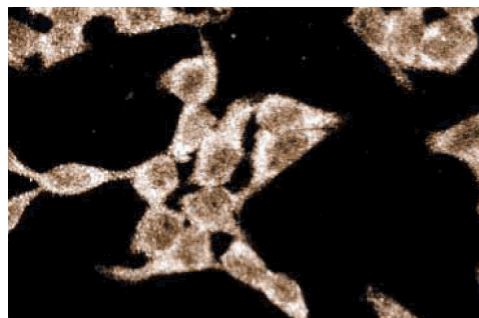
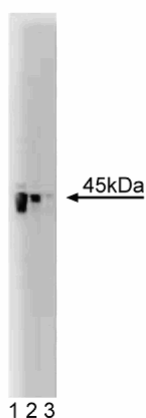
## Purified Mouse Anti-IκBε

## Product Information

Material Number:	611408
Size:	50 µg
Concentration:	250 µg/ml
Clone:	21/IκBε
Immunogen:	Human IκBε aa. 200-211
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	45 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

## Description

NF-κB is a ubiquitously expressed transcription factor that regulates many cytokine and Ig genes. It consists of homo- and heterodimeric proteins that belong to the Rel family of transcription factors. Rel proteins such as p50, p52, p65 (RelA), c-Rel, and RelB contain a Rel homology region (RHR) that includes DNA-binding and dimerization domains and a nuclear localization signal. Inactive NF-κB complexes are associated with their inhibitory IκB proteins. Several IκB proteins have been characterized including IκBα, IκBβ, and IκBε. They contain ankyrin repeats that interact with Rel RHR regions to form complexes in the cytoplasm that prevent nuclear translocation of NF-κB. In response to stimuli such as cytokines, LPS, and viral infections, IκB proteins are phosphorylated at critical residues by IκB kinases (IKKα and IKKβ) leading to proteolysis of IκB proteins. This frees the heterodimeric NF-κB to form a heterotetramer that translocates to the nucleus and acts as a transcriptional activator. IκBε may function primarily in the cytoplasm where it sequesters p65 and c-Rel, while IκBα and IκBβ have additional functions that involve entering the nucleus to inhibit Rel DNA binding.



Western blot analysis of IκBε on A431 lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of IκBε.

HeLa

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

## Application Notes

## Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

Fischer C, Page S, Weber M, Eisele T, Neumeier D, Brand K. Differential effects of lipopolysaccharide and tumor necrosis factor on monocytic I $\kappa$ B kinase signalsome activation and I $\kappa$ B proteolysis. *J Biol Chem.* 1999; 274(35):24525-24632.(Biology)

Page S, Fischer C, Baumgartner B, et al. 4-Hydroxynonenal prevents NF- $\kappa$ B activation and tumor necrosis factor expression by inhibiting I $\kappa$ B phosphorylation and subsequent proteolysis. *J Biol Chem.* 1999; 274(17):11611-11618.(Biology)

Simeonidis S, Liang S, Chen G, Thanos D. Cloning and functional characterization of mouse I $\kappa$ Bepsilon. *Proc Natl Acad Sci U S A.* 1997; 94(26):14327-14377.(Biology)

Whiteside ST, Epinat JC, Rice NR, Israel A. I $\kappa$ B epsilon, a novel member of the I $\kappa$ B family, controls RelA and cRel NF- $\kappa$ B activity. *EMBO J.* 1997; 16(6):1413-1426.(Biology)