Technical Data Sheet

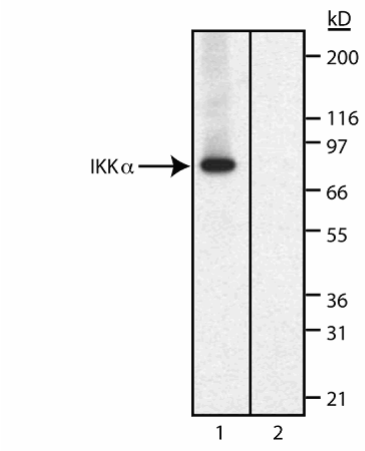
Purified Mouse Anti-Human IKKα

Product Information

Material Number:	**556532**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	B78-1
Immunogen:	Human IKKα
Isotype:	Mouse IgG2b, κ
Target MW:	85 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The nuclear transcription factor kappa-B, NF-κB, is controlled by interaction with an inhibitory subunit, I-κB, which restricts NF-κB to the cytoplasm. Following stimulation by various cytokines or other stimuli, I-κB becomes degraded and NF-κB is released to the nucleus. The release of I-κB from NF-κB is thought to be a critical point in the activation of NF-κB signal pathways. A group of proteins form an NF-κB regulatory complex, or signalsome. Two members of this complex are a pair of closely related kinases, IKKα and IKKβ (also called IKK-1 and IKK-2). IKKα and IKKβ are serine/threonine kinases which share approximately 50% sequence identity. In addition to their kinase domains, these proteins each contain leucine zipper and helix-loop-helix regions which facilitate their interaction with each other as well as interaction(s) with other proteins within the IKK complex. Both IKKα and IKKβ phosphorylate critical residues of I-κB, thus targeting it for subsequent degradation. IKKα and IKKβ become activated themselves following phosphorylation by upstream kinases, including NF-κB-inducing kinase (NIK) and MEKK1. Thus the IKK kinases play an important role in the activation of NF-κB. IKKα migrates at a molecular weight of 85 kD in SDS-PAGE. Clone B78-1 recognizes human IKKα. It does not cross-react with IKKβ. Full length, recombinant human IKKα was used as immunogen. The reactivity of B78-1 was verified by immunoprecipitation and western blot analysis.



Western blot analysis of IKKα. *Lane 1, lysate from Daubi B lymphoma cellswas probed with anti-IKKα (clone B78-1, Cat. No. 556532). Lane 2, mouse IgG2bκ, isotype control.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development

Recommended Assay Procedure:

Applications include western blot analysis (1-2 µg/ml). Immunoprecipitation (1-2 µg of antibody per one million cells or 1-2 µg of antibody for 300 µg of total protein) was also reported for clone B78-1. The following human cell lines are suggested as positive controls: A-204 (Rhabdomyosarcoma, ATCC HTB-82), RD (Rhabdomyosarcoma, ATCC CCL-136), HeLa (cervical carcinoma, ATCC CCL-2), Daudi (Burkitt lymphoma, ATCC CCL-213) and 293 transformed embryonic kidney cells (ATCC CRL-1573).

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611449	HeLa Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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.

References

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Ling L, Cao Z, Goeddel DV. NF-kappaB-inducing kinase activates IKK-alpha by phosphorylation of Ser-176. *Proc Natl Acad Sci U S A.* 1998; 95(7):3792-3797.(Biology)

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Woronicz JD, Gao X, Cao Z, Rothe M, Goeddel DV. IkappaB kinase-beta: NF-kappaB activation and complex formation with IkappaB kinase-alpha and NIK. *Science.* 1997; 278(5339):866-869.(Biology)