

Technical Data Sheet

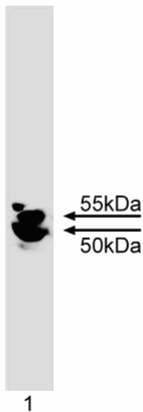
Purified Mouse Anti-IKKγ

Product Information

|                  |   |
|------------------|---|
| Material Number: | 559675  |
| Alternate Name:  | NEMO  |
| Size:            | 0.1 mg  |
| Concentration:   | 0.5 mg/ml   |
| Clone:           | C73-764   |
| Immunogen:       | Recombinant Human IKKγ                                    |
| Isotype:         | Mouse IgG1, κ   |
| Reactivity:      | QC Testing: Mouse<br>Tested in Development: Human         |
| Target MW:       | 50-55 kDa doublet   |
| Storage Buffer:  | Aqueous buffered solution containing ≤0.09% sodium azide. |

Description

The transcription factor NF-κB, (nuclear factor kappa-B) is controlled by interaction with an inhibitory subunit, IκB, which restricts NF-κB to the cytoplasm. Following stimulation by various cytokines or other stimuli, IκB becomes degraded and NF-κB is released to the nucleus. The release of IκB from NF-κB is a critical step 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 serine/threonine kinases, IKKα and IKKβ (aka IKK-1 and IKK-2), which phosphorylate critical residues of IκB, thus targeting it for subsequent degradation. The IKK complex contains similar amounts of IKKα, IKKβ, as well as two other polypeptides, which are differentially processed forms of a third subunit, IKKγ. IKKα and IKKβ become activated following phosphorylation by upstream kinases, including NF-κB-inducing kinase (NIK) and MEKK1. IKKγ interacts preferentially with IKKβ and is required for the activation of the IKK complex. Thus the IKK kinases play an important role in the activation of NF-κB. IKKγ migrates as a doublet between 50-55 kDa in SDS-PAGE.



**Western blot analysis of IKKγ.** Lysates from NIH/3T3 mouse embryonic fibroblast cells were probed with anti-IKKγ antibody (clone C73-764) at a concentration of 0.5 μg/ml. IKKγ is identified as a protein of 50-55 kDa (doublet).

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 | Reported         |

Recommended Assay Procedure:

Applications include western blot analysis and immunoprecipitation. In immunoprecipitation experiments, it is reported that the C73-764 antibody brings down the IKK complex (IKKα, IKKβ, and IKKγ). The immunoprecipitation application has not been evaluated at BD Pharmingen. NIH/3T3 cells (ATCC CRL 1658) are recommended as a western blot positive control.

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## Suggested Companion Products

| Catalog Number | Name                   | Size   | Clone  |
|----------------|------------------------|--------|--------|
| 611452         | NIH 3T3 Cell Lysate    | 500 µg | (none) |
| 554002         | HRP Goat Anti-Mouse Ig | 1.0 ml | (none) |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmlingen/protocols](http://www.bdbiosciences.com/pharmlingen/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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Rothwarf DM, Zandi E, Natoli G, Karin M. IKK-gamma is an essential regulatory subunit of the IkappaB kinase complex. *Nature*. 1998; 395(6699):297-300.(Biology)