

## Technical Data Sheet

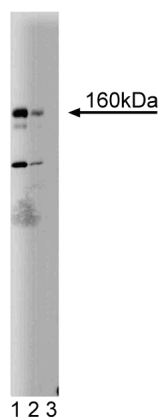
**Purified Mouse Anti-Human DAP Kinase****Product Information**

|                         |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| <b>Material Number:</b> | <b>610290</b>                                                                |
| <b>Size:</b>            | 50 µg                                                                        |
| <b>Concentration:</b>   | 250 µg/ml                                                                    |
| <b>Clone:</b>           | 17/DAP Kinase                                                                |
| <b>Immunogen:</b>       | Human DAP Kinase aa. 694-947                                                 |
| <b>Isotype:</b>         | Mouse IgG1                                                                   |
| <b>Reactivity:</b>      | QC Testing: Human                                                            |
| <b>Target MW:</b>       | 160 kDa                                                                      |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

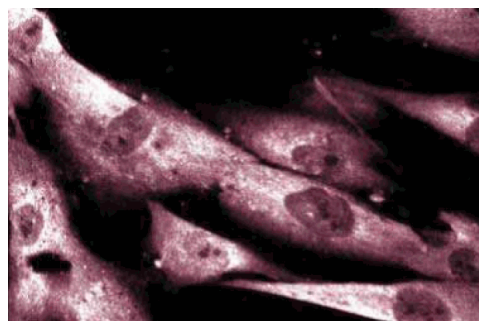
**Description**

Chronic exposure to extracellular signals such as interferons induce the inhibition of cell proliferation followed by cell death. The gene for DAP Kinase (**D**eath **A**ssociated **P**rotein Kinase) was identified using a novel approach named Technical Knockout. Briefly, Hela cells were transfected with an antisense cDNA expression library, then exposed to Interferon- $\gamma$ . The surviving cells, with their antisense cDNAs, were rescued and the "protecting" genes isolated. The DAP Kinase gene encodes a protein of 1423 amino acids, a molecular weight of 160kDa, a kinase domain at its amino terminal region, ankyrin repeats in the middle region, and a death domain at the extreme C-terminus. DAP Kinase phosphorylates at Ser/Thr residues in a  $\text{Ca}^{2+}$ /Calmodulin-dependent fashion. It has been demonstrated that  $\text{Ca}^{2+}$ /Calmodulin binds directly to DAP Kinase at its amino terminal region. In addition, immunostaining studies localized DAP Kinase in association with the actin filaments where it may phosphorylate myosin light chain. Thus, this novel cytoskeletal and  $\text{Ca}^{2+}$ /Calmodulin-dependent protein kinase plays a role in interferon- $\gamma$ -induced cell death.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



**Western blot analysis of DAP Kinase on a SKN (human neuroblastoma) lysate.** Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti-DAP Kinase antibody.



**Immunofluorescence staining of human fibroblasts.**

**Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

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## Application Notes

### Application

|                      |                           |
|----------------------|---------------------------|
| Western blot         | Routinely Tested          |
| Immunofluorescence   | Tested During Development |
| Immunohistochemistry | Tested During Development |
| Immunoprecipitation  | Not Recommended           |

## Suggested Companion Products

| Catalog Number | Name                     | Size   | Clone      |
|----------------|--------------------------|--------|------------|
| 554002         | HRP Goat Anti-Mouse Igs  | 1.0 ml | (none)     |
| 554001         | FITC Goat Anti-Mouse Igs | 0.5 mg | Polyclonal |

## 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

Cohen O, Feinstein E, Kimchi A. DAP-kinase is a  $Ca^{2+}$ /calmodulin-dependent, cytoskeletal-associated protein kinase, with cell death-inducing functions that depend on its catalytic activity. *EMBO J.* 1997; 16(5):998-1008.(Biology)  
Deiss LP, Feinstein E, Berissi H, Cohen O, Kimchi A. Identification of a novel serine/threonine kinase and a novel 15-kD protein as potential mediators of the gamma interferon-induced cell death. *Genes Dev.* 1995; 9(1):15-30.(Biology)