## **Technical Data Sheet**

# **Purified Mouse Anti-Inhibitor 2**

## **Product Information**

Material Number:
Size:
Concentration:
Clone:
Immunogen:
Isotype:
Reactivity:
Target MW:
Storage Buffer:

610698 50 µg  $250 \; \mu g/ml$ 52/Inhibitor 2 Human Inhibitor 2 aa. 1-144 Mouse IgG1 QC Testing: Human 32 kDa Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

## Description

Protein phosphatase 1 (PP1) is involved in protein synthesis, glycogen metabolism, cell division, and neuronal metabolism. PP1 contains a catalytic subunit that is associated with a regulatory subunit (inhibitor 2), a G subunit, and an M subunit. Inhibitor 2 is a heat stable 205 amino acid protein subunit of PP1 that inhibits the activity of the enzyme. Inhibitor 2 is phosphorylated by p90[rsk], MAP kinase, glycogen synthase-3 (GSK-3), and casein kinase II. Phosphorylation of inhibitor 2 results in PP1 activation. It is thought that inhibitor 2 acts as a chaperone for PP1 and prevents the unregulated dephosphorylation of cellular substrates.



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

## **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		
Immunoprecipitation	Not Recommended		
Immunohistochemistry	Not Recommended		

## **Suggested Companion Products**

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611451	Jurkat Cell Lysate	500 µg	(none)

## **BD Biosciences**

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

#### References

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Park IK, Roach P, Bondor J, Fox SP, DePaoli-Roach AA. Molecular mechanism of the synergistic phosphorylation of phosphatase inhibitor-2. Cloning, expression, and site-directed mutagenesis of inhibitor-2. J Biol Chem. 1994; 269(2):944-954. (Biology)

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