

## Technical Data Sheet

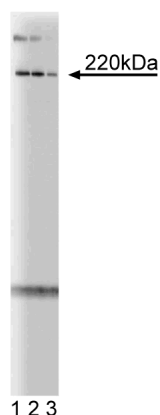
**Purified Mouse Anti-Mouse Pericentrin****Product Information**

<b>Material Number:</b>	<b>611814</b>
<b>Size:</b>	50 µg
<b>Concentration:</b>	250 µg/ml
<b>Clone:</b>	30/Pericentrin
<b>Immunogen:</b>	Mouse pericentrin aa. 1692-1814
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC Testing: Mouse
<b>Target MW:</b>	220 kDa
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

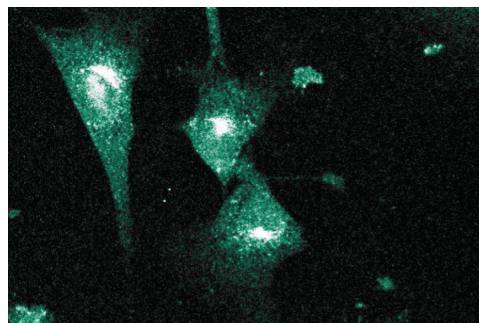
**Description**

Centrosomes and other microtubule-organizing centers are a diverse group of organelles that nucleate and organize microtubules for many cellular processes, such as mitotic spindle formation, organelle transport, and protein localization. Pericentrin is a protein in the pericentriolar material, a filamentous matrix surrounding centrioles, which can organize microtubule spindle formation. The structure of pericentrin includes multiple  $\alpha$ -helical domains that form coiled-coil domains separated by non-helical, non-coiled regions. It is found in a 3 MDa-complex that includes  $\gamma$ -tubulin, a form of tubulin that nucleates microtubule formation at the centrosome. Pericentrin exhibits the highest expression in embryonic mouse kidney, thymus, and liver. Injection of pericentrin antibodies in *Xenopus* oocytes disrupts mitotic and meiotic divisions and blocks microtubule aster formation. In addition, dynein transports both pericentrin and  $\gamma$ -tubulin to centrosomes along microtubules in *Xenopus* oocyte extracts. Thus, the complex of pericentrin and  $\gamma$ -tubulin may be recruited to the centrosome by dynein, where the complex becomes anchored to the centrosome for microtubule nucleating activity.

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 Pericentrin on mouse neonate lysate.** Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-Pericentrin antibody.



**Immunofluorescent staining on NIH-3T3 cells.**

**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

## 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

Doxsey SJ, Stein P, Evans L, Calarco PD, Kirschner M. Pericentrin, a highly conserved centrosome protein involved in microtubule organization. *Cell*. 1994; 76(4):639-650.(Biology)  
Young A, Dichtenberg JB, Purohit A, Tuft R, Doxsey SJ. Cytoplasmic dynein-mediated assembly of pericentrin and gamma tubulin onto centrosomes. *Mol Biol Cell*. 2000; 11(6):2047-2056.(Biology)