Technical Data Sheet

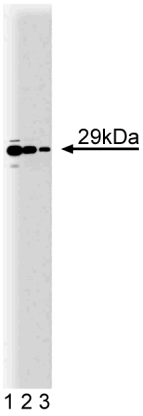
Purified Mouse Anti- 14-3-3

Product Information

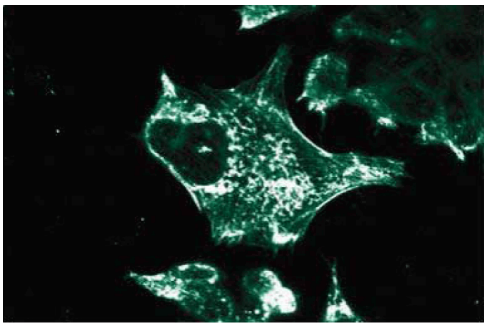
Material Number:	**561466**
Size:	150 µg
Concentration:	250 µg/mL
Clone:	12/14-3-3
Immunogen:	Human 14-3-3
Isotype:	Mouse IgM
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog, Chicken, Frog
Target MW:	29 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The family of 14-3-3 proteins has been implicated in numerous cellular processes such as neurotransmission, phospholipase activity, and calcium signaling. The 14-3-3 protein can associate with several proteins involved in cell proliferation, such as Raf-1, Bcr-Abl, middle T antigen, and CDC25 phosphatase. It appears that 14-3-3 proteins enhance the kinase activity of the Raf proto-oncogene equally as well as Ras, thus, implicating 14-3-3 proteins in the Raf/Ras/Map kinase signaling pathway. However, in spite of 14-3-3 direct association with the CDC25 phosphatase, this interaction does not increase the phosphatase activity. It has been reported that this antibody detects 14-3-3 subunits β, γ, η, θ, and ζ , but not ε nor σ.



Western blot analysis of 14-3-3 on a HeLa cell lysate (Human cervical epitheloid carcinoma; ATCC CCL-2.2). *Lane 1: 1: 1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti- 14-3-3 antibody.*



Immunofluorescence staining of SKN cells (Human neuroblastoma).

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

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

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Ayllon V, Cayla X, Garcia A, et al. Bcl-2 targets protein phosphatase 1 alpha to Bad. *J Immunol.* 2001; 166(12):7345-7352. (Biology: Immunoprecipitation, Western blot)

Conklin DS, Galaktionov K, Beach D.. 14-3-3 proteins associate with cdc25 phosphatases.. *Proc Natl Acad Sci U S A.* 1995; 92(17):7892-7896. (Biology)

Freed E, Symons M, Macdonald SG, McCormick F, Ruggieri R.. Binding of 14-3-3 proteins to the protein kinase Raf and effects on its activation.. *Science.* 1994; 265(5179):1713-1716. (Biology: Western blot)

Mamane Y, Grandvaux N, Hernandez E, et al. Repression of IRF-4 target genes in human T cell leukemia virus-1 infection. *Nature.* 2002; 21(44):6751-6765. (Biology: Immunofluorescence, Immunohistochemistry, Western blot)

Ostrerova N, Petrucelli L, Farrer M, Mehta N,. alpha-Synuclein shares physical and functional homology with 14-3-3 proteins.. *J Neurosci.* 1999; 19(14):5782-5791. (Biology: Immunoprecipitation, Western blot)