Technical Data Sheet

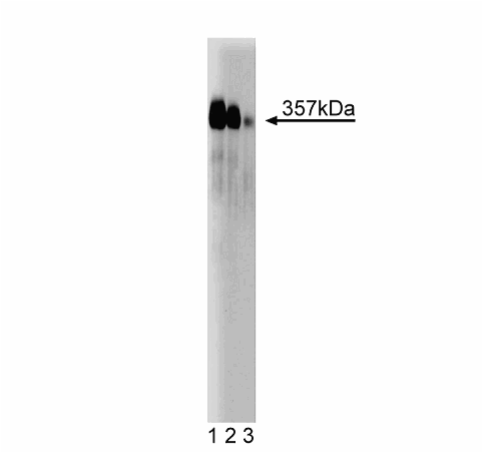
Purified Mouse Anti-Human Mitosin

Product Information

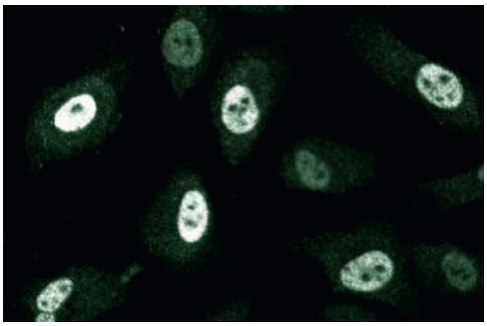
Material Number:	**610768**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	11/Mitosin
Immunogen:	Human Mitosin aa. 209-381
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	357 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Mitosin, a nuclear proetin of 3113 amino acids, contains a pair of tandem repeats and seven leucine repeats. In vitro, Mitosin directly interacts with the retinoblastoma protein, Rb. Mitosin is expressed throughout the cell cycle, with levels being lowest during G1, and it localizes at the kinetochore during the mitotic phase. The subcellular redistribution of Mitosin to the kinetochore is linked to its phosphorylation. Its expression is linked to patients with autoimmune diseases characterized by abnormal cell proliferation. Ectopic expression of a truncated version of Mitosin blocks the progression of the cell cycle. This suggests that the protein has an important role during cell proliferation. Because of similarities in subcellular localization and expression, Mitosin and the autoantigen p300/CENP-F, which is also linked to a multitude of autoimmune disorders, are probably the same protein.



Western blot analysis of Mitosin on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-human Mitosin antibody.*



Immunofluorescence staining of human endothelial cells.

Preparation and Storage

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

BD Biosciences

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Application Notes

Application

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

Recommended Assay Procedure:

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat 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. 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

Casiano CA, Humbel RL, Peebles C, Covini G, Tan EM. Autoimmunity to the cell cycle-dependent centromere protein p330d/CENP-F in disorders associated with cell proliferation. *J Immunol.* 1995; 8(4):575-586.(Biology)

Landberg G, Erlanson M, Roos G, Tan EM, Casiano CA. Nuclear autoantigen p330d/CENP-F: a marker for cell proliferation in human malignancies. *Cytometry.* 1996; 25(1):90-98.(Biology)

Rattner JB, Rao A, Fritzler MJ, Valencia DW, Yen TJ. CENP-F is a .ca 400 kDa kinetochore protein that exhibits a cell-cycle dependent localization. *Cell Motil Cytoskeleton.* 1993; 26(3):214-226.(Biology)

Trinkle-Mulcahy L, Andrews PD, Wickramasinghe S, et al. Time-lapse imaging reveals dynamic relocalization of PP1gamma throughout the mammalian cell cycle. *Mol Biol Cell.* 2003; 14(1):107-117.(Biology: Immunofluorescence)

Zhu X, Mancini MA, Chang KH, et al. Characterization of a novel 350-kilodalton nuclear phosphoprotein that is specifically involved in mitotic-phase progression. *Mol Cell Biol.* 1995; 15(9):5017-5029.(Biology)