

Technical Data Sheet

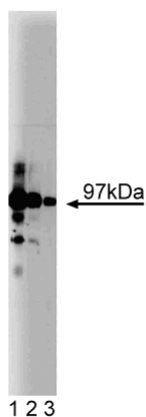
Purified Mouse Anti-CDC27

Product Information

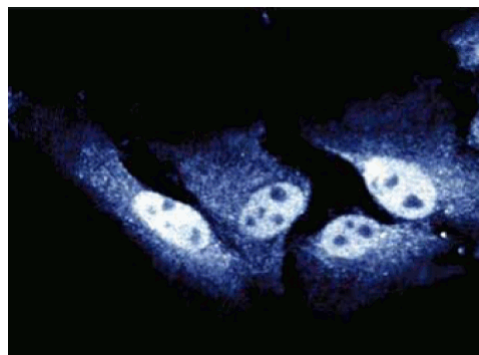
Material Number:	610454
Size:	50 µg
Concentration:	250 µg/ml
Clone:	35/CDC27
Immunogen:	Human CDC27 aa. 145-343
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human Tested in Development: Dog, Rat, Mouse
Target MW:	97 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

CDC16 and *CDC27* were discovered in yeast as genes essential for the G2/M transition of the cell cycle. The human homologues of *CDC16* and *CDC27* were cloned and found to encode proteins of 72kDa and 97kDa, respectively. Biochemical and subcellular localization experiments have shown that *CDC16* and *CDC27* are novel components of the mitotic spindle centrosome in human cells. In HeLa cells, there are about 100,000 copies of each protein per cell. Although its precise role during mitosis remains to be determined, *CDC16* appears to be required for cyclin degradation in yeast. Wild type *CDC27* is required for the initiation of anaphase. Immunofluorescence studies have shown that both proteins are components of the centrosome in the absence of spindle fibers.



Western blot analysis of CDC27 on HeLa lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-CDC27.



Immunofluorescent staining of HeLa cells.

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
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development
Immunohistochemistry	Not Recommended

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

References

Kramer ER, Scheuringer N, Podtelejnikov AV, Mann M, Peters JM. Mitotic regulation of the APC activator proteins CDC20 and CDH1. *Mol Cell Biol.* 2000; 11(5):1555-1569.(Clone-specific: Western blot)

Saitoh H, Pizzi MD, Wang J. Perturbation of SUMOlation enzyme Ubc9 by distinct domain within nucleoporin RanBP2/Nup358. *J Biol Chem.* 2002; 277(7):4755-4763.(Clone-specific: Immunofluorescence)

Tugendreich S, Boguski MS, Seldin MS, Hieter P. Linking yeast genetics to mammalian genomes: identification and mapping of the human homolog of CDC27 via the expressed sequence tag (EST) data base. *Proc Natl Acad Sci U S A.* 1993; 90(21):10031-10035.(Biology)

Tugendreich S, Tomkiel J, Earnshaw W, Hieter P. CDC27Hs colocalizes with CDC16Hs to the centrosome and mitotic spindle and is essential for the metaphase to anaphase transition. *Cell.* 1995; 81(2):261-268.(Biology)