Technical Data Sheet

Purified Mouse Anti-HEC

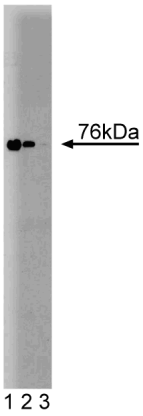
Product Information

Material Number:	**611041**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	1/HEC
Immunogen:	Human HEC aa. 495-608
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog
Target MW:	76 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

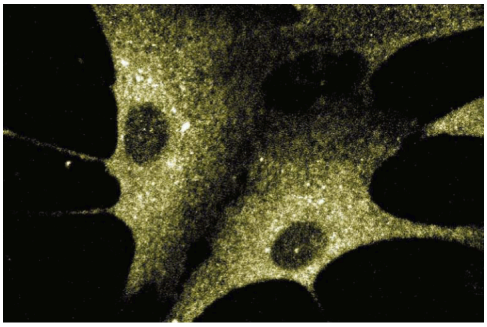
Description

Cell division is a highly regulated process which ensures that properly replicated DNA is received by both daughter cells. During M phase, the pairs of sister chromatids separate into each daughter cell. To ensure correct cell division, each step of this process is highly regulated by proteins such as kinases and phosphatases that serve as checkpoints. HEC (**h**ighly **e**xpressed in **c**ancer) was discovered during a search for mitotic proteins that might provide insight to the progression of malignant cells. HEC was identified via its interaction with Rb (**r**etino**bl**astoma protein) in the yeast two hybrid system. Its expression is elevated during M phase, and it localizes to the centromeres during this time of rapid division. During G1 HEC is dispersed in the nucleus. In addition, HEC is abundant in rapidly dividing cancer cells, but is absent from terminally differentiated cells. Also, microinjection of HEC antibodies resulted in abnormal chromosome distribution. Therefore, HEC is thought to play a role in chromosome segregation during the M phase of the cell cycle.

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 HEC on a Jurkat lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti-HEC antibody.*



Immunoflourescence staining of BC3H1, a murine skeletal muscle cell line.

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
611451	Jurkat Cell Lysate	500 µg	(none)
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/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

Chen Y, Riley DJ, Chen PL, Lee WH. HEC, a novel nuclear protein rich in leucine heptad repeats specifically involved in mitosis. *Mol Cell Biol.* 1997; 17(10):6049-6056.(Biology)