

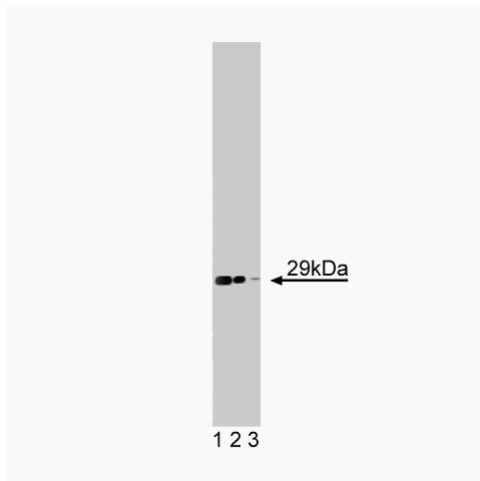
Technical Data Sheet

Purified Mouse Anti-RanBP1**Product Information**

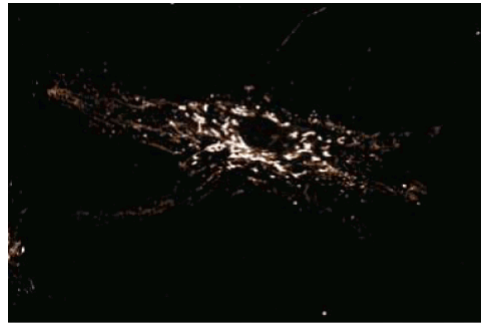
Material Number:	610756
Size:	50 µg
Concentration:	250 µg/ml
Clone:	35/RanBP1
Immunogen:	Human RanBP1 aa. 28-163
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human
Target MW:	29 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Ran is a highly conserved GTPase that is ubiquitously expressed. Ran has been implicated in a number of cellular processes such as the initiation of DNA replication, entry into and exit from mitosis, and in nuclear RNA and protein transport through the nuclear pore complex. A number of Ran binding proteins have been identified. One of the smaller proteins identified is a 29kDa cytosolic molecule known as RanBP1. The GTP-bound state of Ran is stabilized through its binding to RanBP1. In addition, RanBP1 appears to regulate the activity of Ran-GAP1 (**Ran-GTPase activating protein**) by increasing GTP hydrolysis. RanBP1 also inhibits the function of the guanine nucleotide exchange factor RCC1 (regulator of chromosome condensation). Therefore, RanBP1 is responsible for the GTP-bound state of Ran and the increased GTP hydrolysis of Ran GTP.



Western blot analysis of RanBP1 on HepG2 lysate.
Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of RanBP1.



Immunofluorescence staining of Human Fibroblast 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
Immunofluorescence	Tested During Development

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
611555	HepG2 Cell Lysate	500 µg	(none)

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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

- Bischoff FR, Krebber H, Smirnova E, Dong W, Ponstingl H. Co-activation of RanGTPase and inhibition of GTP dissociation by Ran-GTP binding protein RanBP1. *EMBO J.* 1995; 14(4):705-715.(Biology)
- Chi NC, Adam EJ, Visser GD, Adam SA. RanBP1 stabilizes the interaction of Ran with p97 nuclear protein import. *J Cell Biol.* 1996; 135(3):559-569.(Biology)
- Hayashi N, Yokoyama N, Seki T, Azuma Y, Ohba T, Nishimoto T. RanBP1, a Ras-like nuclear G protein binding to Ran/TC4, inhibits RCC1 via Ran/TC4. *Mol Gen Genet.* 1995; 247(6):661-669.(Biology)