Technical Data Sheet

Purified Mouse Anti-Rap2

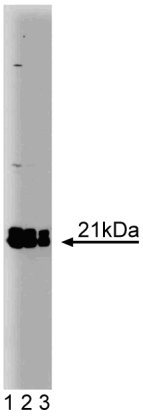
Product Information

Material Number:	**610216**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	12/Rap2
Immunogen:	Human Rap2 aa. 1-183
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human Tested in Development: Chicken, Dog, Frog, Mouse, Rat
Target MW:	21 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

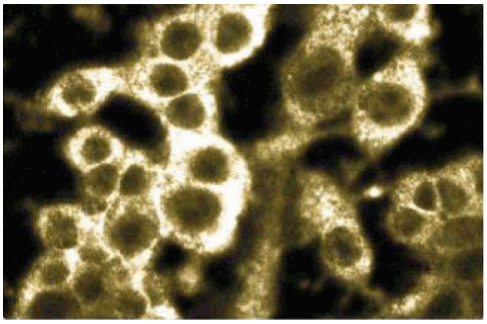
Description

Rap2 is a member of the Ras superfamily of low molecular weight GTP/GDP binding proteins. The Rap proteins are 50% homologous in sequence to p21ras. Like Ras, the Rap proteins cycle between a GDP-bound inactive form and a GTP-bound active form. Conversion between these two forms is regulated by Rap-GTPase activating protein (Rap-GAP) and a Rap-GDP dissociation stimulator (GDS). Since Ras and Rap have the same amino acid sequence in their putative effector domain (aa. 32-40), it seems likely that they perform either similar or antagonistic functions. Rap2 proteins are about 60% identical to Rap1 proteins and Rap2A and Rap2B show 90% amino acid identity, differing mainly at the carboxy-terminus. Unlike Rap1, the Rap2 proteins cannot compete with Ras for interaction with Ras-GAP, nor are they substrates for PKA. It follows that the intrinsic GTPase activity of Rap2A is not stimulated by Ras-GAP; however a distinct activator (Rap-GAP) has been identified. Both Rap2 proteins show posttranslational modifications: Rap2B is geranylgeranylated and Rap2A is the first non-Ras member of the Ras superfamily observed to be farnesylated.

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 Rap2 on a A431 cell lysate. *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of the anti- Rap2 antibody.*



Immunofluorescence staining of mouse macrophages.

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
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development
Immunoprecipitation	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
611447	A431 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

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Ohmstede CA, Farrell FX, Reep BR, Clemetson KJ, Lapetina EG. RAP2B: a RAS-related GTP-binding protein from platelets. *Proc Natl Acad Sci U S A.* 1990; 87(17):6527-6531.(Biology)

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Reedquist KA, Bos JL. Costimulation through CD28 suppresses T cell receptor-dependent activation of the Ras-like small GTPase Rap1 in human T lymphocytes. *J Biol Chem.* 1998; 273(9):4944-4949.(Biology: Western blot)