Technical Data Sheet

Purified Mouse Anti-Ras

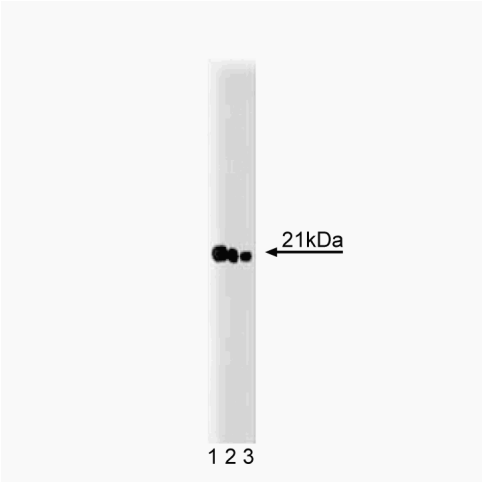
Product Information

Material Number:	**610002**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	18/Ras
Immunogen:	Human Ras (Ha-ras) aa. 1-190
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Chicken, Dog, Mouse, Rat
Target MW:	21 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

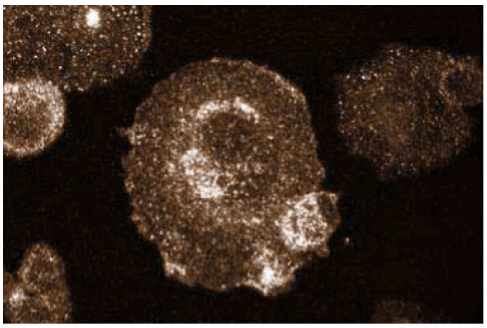
Description

Ras and related proteins of the Ras superfamily play critical roles in the control of normal and neoplastic proliferation. In mammalian cells there are four true Ras proteins (encoded by Ha-*ras*, N-*ras*, Ki-*ras*A, and Ki-*ras*B) which, upon mutational activation, can function as independent oncogenes. These proteins relay signals from tyrosine kinases at the plasma membrane which subsequently lead to the nucleus via a network of serine/threonine kinases . The p21ras protein is active in its GTP-bound state. This form is slowly converted to the GDP-bound form by the intrinsic GTPase activity of Ras. This activity is greatly enhanced byGTPase-activating proteins (GAPs) which subsequently lead to removal of the GTP molecule and replacement with GDP. Maintenance of Ras in the GTP form can lead to transformation. One class of Ras mutations, commonly found in human tumors, results in an accumulation of Ras-GTP. The mutant Ras can bind GAP, but GAP bound in this manner seems unable to affect the Ras-GTPase activity.

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 Ras on A431 lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-Ras antibody.*



Immunofluorescent staining of Hs 766T cells

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	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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Dhillon AS, Meikle S, Yazici Z, Eulitz M, Kolch W. Regulation of Raf-1 activation and signalling by dephosphorylation. *EMBO J.* 2002; 21(1-2):64-71. (Clone-specific: Immunoprecipitation, Western blot)

Garcia J, de Gunzburg J, Eychene A, Gisselbrecht S, Porteu F. Thrombopoietin-mediated sustained activation of extracellular signal-regulated kinase in UT7-Mpl cells requires both Ras-Raf-1- and Rap1-B-Raf-dependent pathways. *Mol Cell Biol.* 2001; 21(8):2659-2670.(Clone-specific: Western blot)

Gibbs JB, Marshall MS. The ras oncogene--an important regulatory element in lower eucaryotic organisms. *Microbiol Rev.* 1989; 53(2):171-185.(Biology)

Spaargaren M, Bos JL. Rab5 induces Rac-independent lamellipodia formation and cell migration. *Mol Biol Cell.* 1999; 10(10):3239-3250.(Clone-specific: Immunofluorescence)