Technical Data Sheet

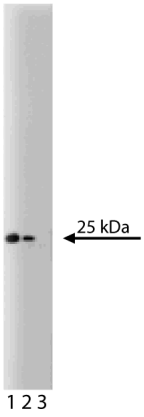
# Purified Mouse Anti-Ran

## Product Information

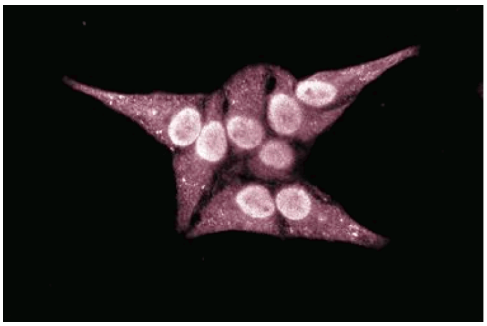
| | |
|---|---|
| **Material Number:** | **610341** |
| **Size:** | 150 µg |
| **Concentration:** | 250 µg/ml |
| **Clone:** | 20/Ran |
| **Immunogen:** | Human Ran aa. 7-171 |
| **Isotype:** | Mouse IgG2a |
| **Reactivity:** | QC Testing: Human<br>Tested in Development: Chicken, Dog, Mouse, Rat |
| **Target MW:** | 25 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. At steady-state, 80-90% of cellular Ran is located in the nucleus, with the remainder in the cytoplasm. The human TC4/Ran cDNA was originally isolated based on the predicted homology of its encoded protein product to Ras. Unlike other members of the Ras superfamily, Ran does not appear to contain signals for lipid modification, nor does it appear to show membrane localization. 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 28kDa cytosolic molecule known as RanBP1. The GTP-bound state of Ran is stabilized through its binding to RanBP1.




***Western blot analysis of Ran on A431 cell lysate.*** *Lane 1: 1:5000, lane 2: 1:10000, lane 3: 1:20000 dilution of anti-Ran antibody.*



***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.

**BD Biosciences**

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| 877.232.8995 | 888.259.0187 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

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## Application Notes

**Application**

| | |
|---|---|
| Western blot | Routinely Tested |
| Immunofluorescence | Tested During Development |
| Immunohistochemistry | Tested During Development |
| Immunoprecipitation | Tested During Development |

**Recommended Assay Procedure:**

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 611447 | A431 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. 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


Drivas GT, Shih A, Coutavas E, Rush MG, D'Eustachio P. Characterization of four novel ras-like genes expressed in a human teratocarcinoma cell line. *Mol Cell Biol.* 1990; 10(4):1793-1798.(Biology)

Faleiro L, Lazebnik Y. Caspases disrupt the nuclear-cytoplasmic barrier. *J Cell Biol.* 2000; 151(5):951-959.(Clone-specific: Immunofluorescence)

Iborra FJ, Jackson DA, Cook PR. The path of RNA through nuclear pores: apparent entry from the sides into specialized pores. *J Cell Sci.* 2000; 113(2):291-302.(Clone-specific: Electron microscopy)

Nemergut ME, Lindsay ME, Brownawell AM, Macara IG. Ran-binding protein 3 links Crm1 to the Ran guanine nucleotide exchange factor. *J Biol Chem.* 2002; 277(20):17385-17388.(Clone-specific: Western blot)

Schwoebel ED, Ho TH, Moore MS. The mechanism of inhibition of Ran-dependent nuclear transport by cellular ATP depletion. *J Cell Biol.* 2002; 157(6):963-974.(Clone-specific: Immunofluorescence, Western blot)