Ran BP-2 (D-4): sc-74518

**BACKGROUND**

The small Ras-related protein Ran, also known as TC4, is a nuclear-localized GTPase implicated in a diverse array of cellular processes including DNA replication, entry into and exit from mitosis, and the transport of RNA and proteins through the nuclear pore complex. Ran-binding protein 2 (Ran BP-2 or Nup358) is a large scaffold cyclophilin-related protein expressed in photoreceptor cells that contains four RanBD1 domains. Localization at cytoplasmic fibrils emanates Ran BP-2 from the nuclear pore complex, which then interacts with Ran-GTPase to support its role in nucleocytoplasmic transport processes. In humans, the Ran BP-2 gene lies in a hot spot for recombination on chromosome 2q. The genetic heterogeneity renders further significance of this genomic region in human disease due to its possible involvement in genetically linked disorders such as juvenile nephronophthisis, congenital hepatic fibrosis and chorioretinal dysplasia. Duplication events that occurred at the 3 Mb distal to Ran BP-2 gave rise to eight new genes encoding RGPD (RanBP2-like), GRIP domain-containing proteins, which are highly homologous to Ran BP-2.

**SOURCE**

Ran BP-2 (D-4) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Ran BP-2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappalight chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ran BP-2 (D-4) is available conjugated to agarose (sc-74518 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74518 HRP), 200 µg/ml, for WB, IHC/IP and ELISA; to either phycoerythrin (sc-74518 PE), fluorescein (sc-74518 FITC), Alexa Fluor® 488 (sc-74518 AF488), Alexa Fluor® 546 (sc-74518 AF546), Alexa Fluor® 594 (sc-74518 AF594) or Alexa Fluor® 647 (sc-74518 AF647), 200 µg/ml, for WB (RGB), IF, IHC/IP and FCM; and to either Alexa Fluor® 680 (sc-74518 AF680) or Alexa Fluor® 790 (sc-74518 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Ran BP-2 (D-4) is recommended for detection of Ran BP-2 of mouse, rat and human origin, and the RGPD family of proteins of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:500-1:5000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ran BP-2 siRNA (m): sc-36381, Ran BP-2 shRNA Plasmid (m): sc-36381-SH and Ran BP-2 shRNA (m) Lentiviral Particles: sc-36381-V.

Molecular Weight of Ran BP-2: 358 kDa.


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**STORAGE**

Store at 4°C, **“DO NOT FREEZE”**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.