Rap 1 (E-6): sc-398755

**BACKGROUND**

Ras oncogenes encode GTP-binding proteins that are capable of transforming immortalized cells in culture. Two Ras-related human genes, designated Rap1A and Rap1B, encode 95% homologous proteins that share with Ras proteins a similar C-terminal Cys-Ala-Ala-Xaa sequence and are ubiquitously expressed in mammalian tissues. The putative "effector" domain of Ras proteins whose integrity is required for cell transformation as well as interaction with the putative effector protein GAP is conserved in both Rap 1 proteins. It has been postulated that p21Rap 1 acts to interfere with Ras effector function by binding to Ras GAP. In fact, it is known that p21Rap 1 binds to Ras GAP in a GTP-dependent manner without affecting p21Rap 1 GTPase activity. A GAP protein specific for p21Rap 1 has been identified and the corresponding cDNA has been isolated.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: RAP1A (human) mapping to 1p13.2, RAP1B (human) mapping to 10q23.1. Rap1A and Rap1B, encode 95% homologous proteins that share with Ras proteins a similar C-terminal Cys-Ala-Ala-Xaa sequence and are ubiquitously expressed in mammalian tissues. The putative "effector" domain of Ras proteins whose integrity is required for cell transformation as well as interaction with the putative effector protein GAP is conserved in both Rap 1 proteins. It has been postulated that p21Rap 1 acts to interfere with Ras effector function by binding to Ras GAP. In fact, it is known that p21Rap 1 binds to Ras GAP in a GTP-dependent manner without affecting p21Rap 1 GTPase activity. A GAP protein specific for p21Rap 1 has been identified and the corresponding cDNA has been isolated.

**SOURCE**

Rap 1 (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 140-174 near the C-terminus of Rap 1A of human origin.

**PRODUCT**

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

Rap 1 (E-6) is available conjugated to agarose (sc-398755 AC), 500 µg/0.25 ml, for IP; to HRP (sc-398755 HRP), 200 µg/ml, for WB, IHC(P) and FCM; and to either Alexa Fluor 488 (sc-398755 AF594) or Alexa Fluor 594 (sc-398755 AF647), Alexa Fluor® 594 (sc-398755 AF594) or Alexa Fluor® 647 (sc-398755 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 488 (sc-398755 AF488), Alexa Fluor® 546 (sc-398755 AF546), Alexa Fluor® 594 (sc-398755 AF594) or Alexa Fluor® 647 (sc-398755 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 488 (sc-398755 AF488) or Alexa Fluor® 594 (sc-398755 AF594) or Alexa Fluor® 647 (sc-398755 AF647), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM. Blocking peptide available for competition studies, sc-398755 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**APPLICATIONS**

Rap 1 (E-6) is recommended for detection of Rap 1A and Rap 1B of mouse, rat and 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 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rap 1 siRNA (h): sc-36384, Rap 1 siRNA (m): sc-36385, Rap 1 siRNA (r): sc-270358, Rap 1 shRNA Plasmid (h): sc-36384-SH, Rap 1 shRNA Plasmid (m): sc-36385-SH, Rap 1 shRNA Plasmid (r): sc-270358-SH. Anti-Rap 1 (sc-398755) is suitable as an immunoprecipitation reagent for Rap 1A and Rap 1B of mouse, rat and human origin.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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