BACKGROUND

DDEF1 (development and differentiation enhancing factor 1), also known as ASAP1, AMAP1 or PAG2, is an ADP ribosylation factor (ARF)-GTPase activating protein (GAP) that interacts with various signal transduction proteins. Localized to the cytoplasm and to newly formed focal complexes at the cell periphery, DDEF1 coordinates with proteins such as ARF1, ARF5, ARF6 and SRK (ZAP-70) to influence growth and differentiation events. Through its interactions with these proteins, DDEF1 plays a key role in cell motility and regulation of Actin cytoskeletal remodeling, as well as in differentiation of adipocytes and fibroblasts. DDEF1 contains two ANK repeats, one ARF-GAP domain, one SH3 domain and one PH domain which is essential in the phosphoinositide-dependent regulation of ARFs. Overexpression of DDEF1 is thought to block the invasion and metastasis of breast cancer and high-grade uveal melanomas, suggesting a possible role as a therapeutic target and diagnostic marker for certain cancers.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ASAP1 (human) mapping to 8q24.21; Asap1 (mouse) mapping to 15 D1.

SOURCE

DDEF1 (19) is a mouse monoclonal antibody raised against amino acids 907-1096 of DDEF1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DDEF1 (19) is recommended for detection of DDEF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for DDEF1 siRNA (h): sc-62196, DDEF1 siRNA (m): sc-62197, DDEF1 shRNA Plasmid (h): sc-62196-SH, DDEF1 shRNA Plasmid (m): sc-62197-SH, DDEF1 shRNA (h) Lentiviral Particles: sc-62196-V and DDEF1 shRNA (m) Lentiviral Particles: sc-62197-V.

Molecular Weight of DDEF1: 125 kDa.

Positive Controls: mouse brain extract: sc-2253, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:


DATA

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

RESEARCH USE

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