Gem belongs to the Rad/Gem/Kir (RGK) subfamily of Ras-related GTPases, which lack typical C-terminal amino acid motifs for isoprenylation. Rad and Gem bind calmodulin in a Ca²⁺-dependent manner via this C-terminal extension, involving residues 278-279 in human Rad. High intracellular Gem levels, which interact with intact microtubules and microfilaments, promote profound changes in cell morphology. Ectopic Gem expression is sufficient to stimulate cell flattening and neurite extension in N1E-115 and SH-SY5Y neuroblastoma cells, suggesting a role for Gem in cytoskeletal rearrangement and/or morphological differentiation of neurons. Gem was also observed in developing trigeminal nerve ganglia in 12.5 day mouse embryos, demonstrating that Gem changes in cell morphology. Ectopic Gem expression is sufficient to stimulate cells, suggesting a role for Gem in cytoskeletal rearrangement and/or morphological differentiation of neurons.

Suitable for use as control antibody for Gem siRNA (h): sc-41719, Gem siRNA (m): sc-41720, Gem shRNA Plasmid (h): sc-41719-SH, Gem shRNA Plasmid (m): sc-41720-SH, Gem shRNA (h) Lentiviral Particles: sc-41719-V and Gem shRNA (m) Lentiviral Particles: sc-41720-V.

Molecular Weight of Gem: 35 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, A549 cell lysate: sc-2413 or U-251-MG whole cell lysate: sc-364176.

**APPLICATIONS**

Gem (G-1) is recommended for detection of Gem 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 for use as control antibody for Gem siRNA (h): sc-41719, Gem siRNA (m): sc-41720, Gem shRNA Plasmid (h): sc-41719-SH, Gem shRNA Plasmid (m): sc-41720-SH, Gem shRNA (h) Lentiviral Particles: sc-41719-V and Gem shRNA (m) Lentiviral Particles: sc-41720-V.

**DATA**

Gem (G-1): sc-166891. Western blot analysis of Gem expression in A549 (A), NIH/3T3 (B) and 3T3-L1 (C) whole cell lysates.

Gem (G-1): sc-166891. Western blot analysis of Gem expression in U-251-MG (A) and A549 (B) whole cell lysates.

**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.