**BACKGROUND**

Geminin is a nuclear protein that regulates the initiation of DNA replication during the cell cycle. DNA replication requires the coordinated association of Cdc6 and minichromosome maintenance (MCM) proteins with chromatin. Geminin blocks this assembly of MCM into the prereplication complex and, in turn, prevents replication from occurring. Expression of geminin fluctuates throughout the cell cycle with geminin levels lowest at G1. Throughout S, G2, and M phases, Geminin levels are consistently elevated followed by a decrease during mitosis. The initiation of DNA replication is dependent on the degradation of Geminin during mitosis and the absence of Geminin throughout G1 phase. Geminin degradation is mediated by the anaphase-promoting complex (APC), which specifically targets B-type cyclins and other proteins containing a destruction box motif for degradation by ubiquitin-mediated proteolysis.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GMNN (human) mapping to 6p22.2; Gmnn (mouse) mapping to 13 A3.1.

**SOURCE**

Geminin (FL-209) is a rabbit polyclonal antibody raised against amino acids 1-209 representing full length Geminin of human origin.

**PRODUCT**

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

**APPLICATIONS**

Geminin (FL-209) is recommended for detection of Geminin 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)], 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).


Molecular Weight of Geminin: 35 kDa.

Positive Controls: MM-142 nuclear extract: sc-2139 or Geminin (m): 293T Lysate: sc-120468.

**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**

![Western blot analysis of Geminin expression](image)

Geminin (FL-209) sc-13015. Western blot analysis of Geminin expression in non-transfected 293T: sc-117752 (A), mouse Geminin transfected 293T: sc-120468 (B) and MM-142 (C) whole cell lysates.

**SELECT PRODUCT CITATIONS**


