9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

36-2902: Anti-Geminin / DNA Replication Inhibitor Monoclonal Antibody(Clone: CPTC-GMMN-1)

Clonality :	Monoclonal
Clone Name :	CPTC-GMMN-1
Application :	IF,IHC
Reactivity :	Human
Gene :	GMMN
Gene ID :	51053
Uniprot ID :	O75496
Alternative Name :	DNA replication inhibitor; Gem; Geminin DNA replication inhibitor; GMMN; RP3 369A17.3
Isotype :	Mouse IgG1
Immunogen Information :	Recombinant human full-length protein

Description

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 the MCM into the prereplication complex and, in turn, prevents replication from occurring. Expression of Geminin fluctuates throÂµghout the cell cycle with Geminin levels lowest at G1. ThroÂµghout 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 throÂµghout G1 phase. Geminin degradation is mediated by the anaphasepromoting complex (APC), which specifically targets B-type cyclins and other proteins containing a destruction box motif for degradation by ubiquitinmediated proteolysis. While geminin expression is essential in maintaining chromosomal integrity, it is frequently overexpressed in cancers and evidence sÂµggests that it plays a significant role in tumor proliferation and progression.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage condition :	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

Application Note

Immunofluorescence (1-2ug/ml); ,Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95 &degC followed by cooling at RT for 20 minutes),

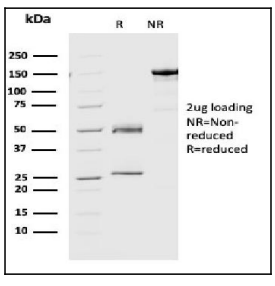


Fig. 1: SDS-PAGE Analysis Purified Geminin Monoclonal Antibody (CPTC-GMMN-1). Confirmation of Purity and Integrity of Antibody.

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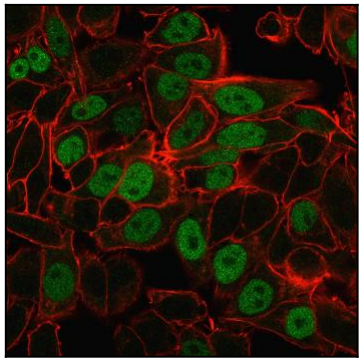


Fig. 2: Immunofluorescence Analysis of PFA-fixed HeLa cells labeling Geminin with Geminin Monoclonal Antibody (CPTC-GMMN-1) followed by Goat anti-Mouse IgG-CF488 (Green). Membrane is labeled with Phalloidin

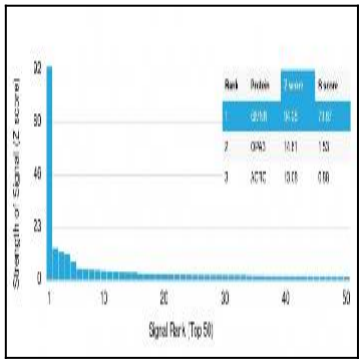


Fig. 3: Analysis of Protein Array containing more than 19,000 full-length human proteins using Geminin / DNA Replication Inhibitor Monoclonal Antibody (CPTC-GMMN-1). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (Monoclonal Antibody) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a Monoclonal Antibody to its intended target. A Monoclonal Antibody is considered to specific to its intended target, if the Monoclonal Antibody has an S-score of at least 2.5. For example, if a Monoclonal Antibody binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that Monoclonal Antibody to protein X is equal to 29.

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