

Datasheet for ABIN6940265

anti-Geminin antibody**3** Images[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	Geminin (GMNN)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Geminin antibody is un-conjugated
Application:	Immunohistochemistry (IHC), Immunofluorescence (IF), Staining Methods (StM)

Product Details

Immunogen:	Recombinant human full-length protein
Clone:	CPTC-GMMN-1
Isotype:	IgG1 kappa
Purification:	Purified by Protein A/G

Target Details

Target:	Geminin (GMNN)
Alternative Name:	GMMN (GMNN Products)
Background:	<p>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</p>

Target Details

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 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 suggests that it plays a significant role in tumor proliferation and progression.

Molecular Weight: 35kDa

Gene ID: 51053

UniProt: [O75496](#)

Pathways: [EGFR Signaling Pathway](#), [DNA Replication](#)

Application Details

Application Notes: Positive Control: HEK293, HeLa, MCF-7, Tonsil, Triple-negative breast cancer.
Known Application: Immunofluorescence (1-2 µg/mL), Immunohistochemistry (Formalin-fixed) (0.5-1 µg/mL for 30 min at RT)(Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes)Optimal dilution for a specific application should be determined.

Restrictions: For Research Use only

Handling

Concentration: 200 µg/mL

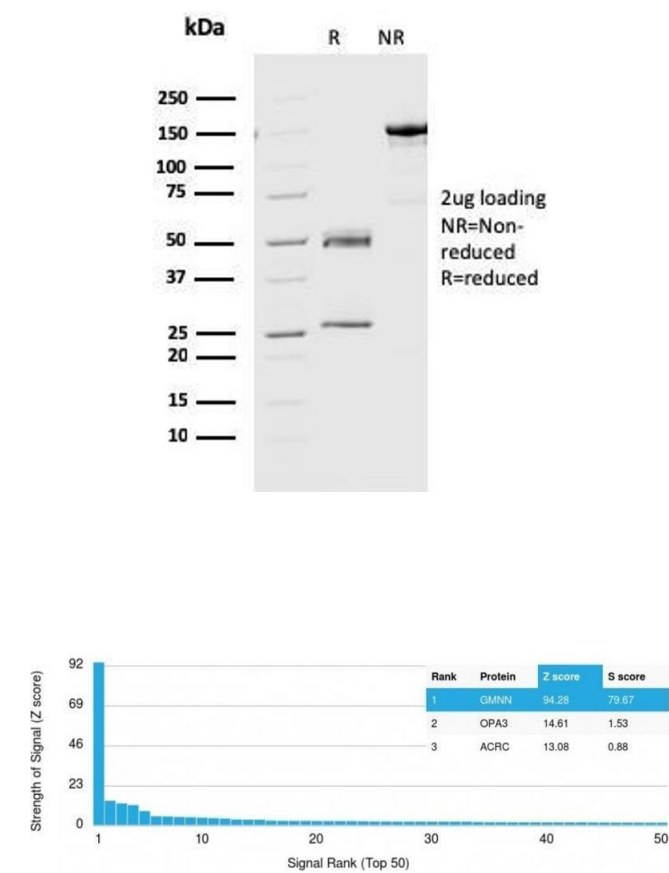
Buffer: 10 mM PBS with 0.05 % BSA & 0.05 % azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C,-80 °C

Storage Comment: 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. No MSDS required.

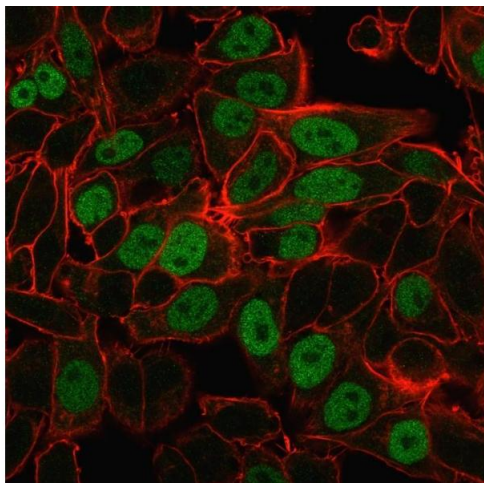


SDS-PAGE

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

Protein Array

Image 2. 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 HuProt™ 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 HuProt™ 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.



Immunofluorescence

Image 3. 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