

## Geminin / DNA Replication Inhibitor Antibody

Mouse Monoclonal Antibody [Clone GMNN/3665]

Catalog No	Format	Size
51053-MSM2-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
51053-MSM2-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
51053-MSM2-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

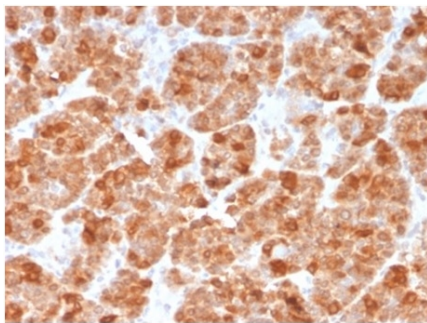
Applications	Tested Dillution	Note
Immunofluorescence (IF)	1-3ug/ml	
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

### Product Details

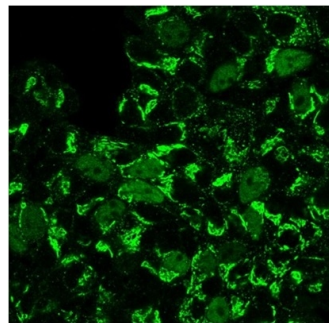
<b>Clone</b>	GMNN/3665
<b>Gene Name</b>	GMNN
<b>Immunogen</b>	Recombinant fragment of human GMNN protein (exact sequence is proprietary)
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype / Light Chain</b>	IgG1 / Kappa
<b>Mol. Weight of Antigen</b>	35kDa
<b>Cellular Localization</b>	Cytoplasm, Nucleus
<b>Species Reactivity</b>	Human
<b>Positive Control</b>	HEK293, HeLa or MCF-7 cells. Human tonsil, testis or triple-negative breast cancer tissue.

\*Optimal dilution for a specific application should be determined.

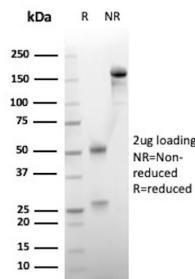
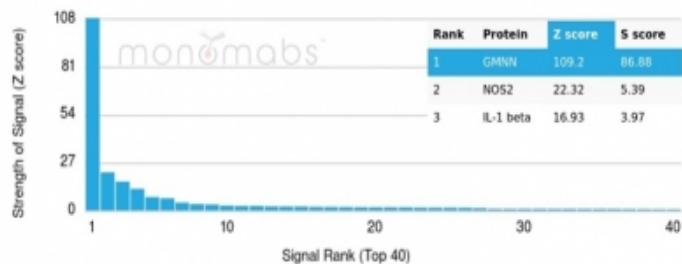
### Product Images for Geminin / DNA Replication Inhibitor Antibody



Formalin-fixed, paraffin-embedded human spleen stained with Geminin Mouse Monoclonal Antibody (GMNN/3665). HIER: Tris/EDTA, pH9.0, 45min. 2°C: HRP-polymer, 30min. DAB, 5min.

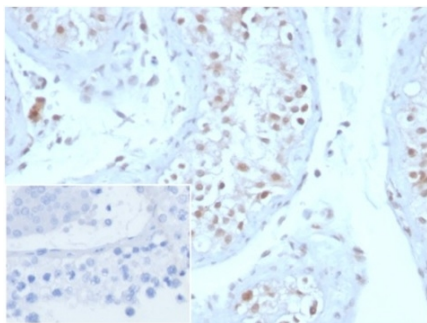


Immunofluorescence Analysis of PFA-fixed MCF7 cells stained using Geminin Mouse Monoclonal Antibody (GMNN/3665) followed by goat anti-mouse IgG-CF488 (green).



Immunofluorescence Analysis of PFA-fixed MCF7 cells stained using Geminin Mouse Monoclonal Antibody (GMNN/3665)

SDS-PAGE Analysis of Purified Geminin Mouse Monoclonal Antibody (GMNN/3665). Confirmation of Purity and Integrity of Antibody.



Formalin-fixed, paraffin-embedded human testis stained with Geminin Mouse Monoclonal Antibody (GMNN/3665). Inset: PBS instead of primary antibody; secondary only negative control.

### Specificity & Comments

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 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. 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.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200ug/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 and Stability

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.

### Research Areas

Cardiovascular, Nuclear Marker