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GMNN Antibody (Center Y111)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5227c

Product Information

Application	WB, IHC-P, E
Primary Accession	O75496
Other Accession	O88513
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20074
Calculated MW	23565
Antigen Region	96-123

Additional Information

Gene ID	51053
Other Names	Geminin, GMNN
Target/Specificity	This GMNN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 96-123 amino acids from the Central region of human GMNN.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GMNN Antibody (Center Y111) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GMNN
Function	Inhibits DNA replication by preventing the incorporation of MCM complex into pre-replication complex (pre-RC) (PubMed:14993212, PubMed:20129055, PubMed:24064211, PubMed:9635433). It is degraded during the mitotic phase

	of the cell cycle (PubMed:14993212, PubMed:24064211, PubMed:9635433). Its destruction at the metaphase- anaphase transition permits replication in the succeeding cell cycle (PubMed:14993212, PubMed:24064211, PubMed:9635433). Inhibits histone acetyltransferase activity of KAT7/HBO1 in a CDT1-dependent manner, inhibiting histone H4 acetylation and DNA replication licensing (PubMed:20129055). Inhibits the transcriptional activity of a subset of Hox proteins, enrolling them in cell proliferative control (PubMed:22615398).
Cellular Location	Cytoplasm. Nucleus. Note=Mainly cytoplasmic but can be relocalized to the nucleus.

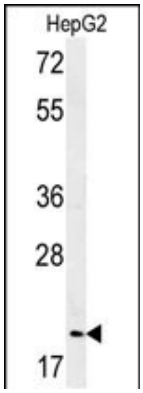
Background

GMNN inhibits DNA replication by preventing the incorporation of MCM complex into prereplication complex (pre-RC). It is degraded during the mitotic phase of the cell cycle. Its destruction at the metaphase-anaphase transition permits replication in the succeeding cell cycle.

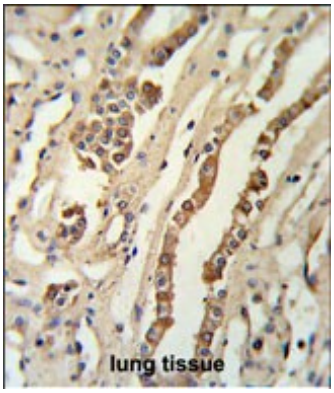
References

De Marco, V., et al. Proc. Natl. Acad. Sci. U.S.A. 106(47):19807-19812(2009)
Zhu, W., et al. Cancer Res. 69(11):4870-4877(2009)
Lu, F., et al. Biol. Cell 101(5):273-285(2009)

Images



Western blot analysis of GMNN Antibody (Center Y111) (Cat. #AP5227c) in HepG2 cell line lysates (35ug/lane).GMNN (arrow) was detected using the purified Pab.



GMNN Antibody (Center Y111) (Cat. #AP5227c) IHC analysis in formalin fixed and paraffin embedded lung tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the GMNN Antibody (Center Y111) for immunohistochemistry. Clinical relevance has not been evaluated.