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# GEMC1 Antibody
**Catalog # ASC11339**

## Specification

### GEMC1 Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | A6NCL1 |
| Other Accession | NP_001140158, 226442751 |
| Reactivity | **Human, Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Application Notes | **GEMC1 antibody can be used for detection of GEMC1 by Western blot at 1 µg/mL.** |

### GEMC1 Antibody - Additional Information

Gene ID **647309**

**Target/Specificity**
GEMC1;

**Reconstitution & Storage**
GEMC1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**
GEMC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### GEMC1 Antibody - Protein Information

**Name** GMNC

**Synonyms** GEMC1

**Function**
Regulator of DNA replication. Promotes initiation of chromosomal DNA replication by mediating TOPBP1- and CDK2-dependent recruitment of CDC45L onto replication origins (By similarity).

**Cellular Location**
Nucleus. Note=Associates with chromatin during pre-replication complex (pre-RC) formation

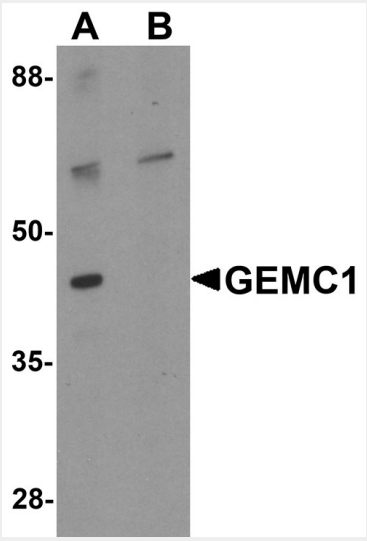
### GEMC1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

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- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**GEMC1 Antibody - Images**




Western blot analysis of GEMC1 in mouse heart tissue lysate with GEMC1 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide

**GEMC1 Antibody - Background**

GEMC1 Antibody: The Geminin coiled-coil domain-containing protein 1 (GEMC1) is a highly conserved protein that is required for chromosomal replication. GEMC1 contains a region similar to the coiled-coil domain of geminin, an essential vertebrate replication protein in which the coiled-coil domain is required for the function. GEMC1 binds to the checkpoint and replication factor TopBP1, allowing the binding of GEMC1 to chromatin during pre-replication complex formation. GEMC1 also directly interacts with replication factors Cdc45 and Cdk2-CyclinE and stimulates the initiation of DNA replication. Depletion of GEMC1 by siRNA in embryonic and somatic vertebrate cells prevents DNA replication due to impairment of Cdc45 loading onto chromatin, suggesting GEMC1 promotes initiation of DNA replication by mediating TopBP1 and Cdk2 dependent recruitment of Cdc45 onto replication origins.

**GEMC1 Antibody - References**

Piergiovanni G, Costanzo V. GEMC1 is a novel TopBP1-interacting protein involved in chromosomal DNA replication. Cell Cycle 2010; 9:3662-6.
McGarry TJ and Kirschner MW. Geminin, an inhibitor of DNA replication, is degraded during mitosis. Cell 1998; 93:1043-53.
Rowles A and Blow JJ. Chromatin proteins involved in the initiation of DNA replication. Curr. Opin. Genet. Dev. 1997; 7:152-7.
Balestrini A, Cosentino C, Errico A, et al. GEMC1 is a TopBP1 interacting protein required for chromosomal DNA replication. Nat. Cell Biol. 2010; 12:484-91.