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KD-Validated Anti-MCM7 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2303

Specification

KD-Validated Anti-MCM7 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P33993
Reactivity	**Rat, Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 81 kDa , observed, 81 kDa KDa**
Gene Name	**MCM7**
Aliases	**Minichromosome Maintenance Complex Component 7; CDC47; PPP1R104; MCM2; Protein Phosphatase 1, Regulatory Subunit 104; DNA Replication Licensing Factor MCM7; CDC47 Homolog; P1.1-MCM3; MCM7 Minichromosome Maintenance Deficient 7 (S. Cerevisiae); Minichromosome Maintenance Deficient (S. Cerevisiae) 7; Minichromosome Maintenance Deficient 7; Homolog Of S. Cerevisiae Cdc47; EC 3.6.4.12; P1CDC47; PNAS146; P85MCM**
Immunogen	**A synthesized peptide derived from human MCM7**

KD-Validated Anti-MCM7 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**4176**

Other Names
DNA replication licensing factor MCM7, 3.6.4.12, CDC47 homolog, P1.1-MCM3, MCM7 (HGNC:6950), CDC47, MCM2

KD-Validated Anti-MCM7 Rabbit Monoclonal Antibody - Protein Information

Name MCM7 (HGNC:6950)

Synonyms CDC47, MCM2

Function
Acts as a component of the MCM2-7 complex (MCM complex) which is the replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. Core component of CDC45-MCM-GINS (CMG) helicase, the molecular machine that unwinds template DNA during replication, and around which the replisome is built (PubMed:25661590, PubMed:32453425, PubMed:<a

href="http://www.uniprot.org/citations/34694004" target="_blank">34694004, PubMed:34700328, PubMed:35585232, PubMed:9305914). The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity (PubMed:32453425). Required for S-phase checkpoint activation upon UV-induced damage.

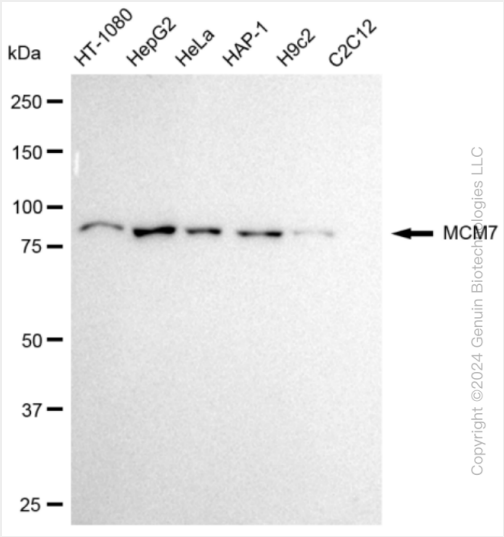
Cellular Location
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

KD-Validated Anti-MCM7 Rabbit Monoclonal Antibody - Protocols

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

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

KD-Validated Anti-MCM7 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-MCM7 antibody (Cat#AGI2303). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-MCM7 antibody (Cat#AGI2303, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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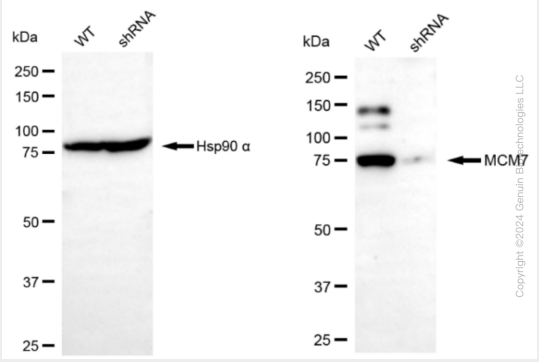
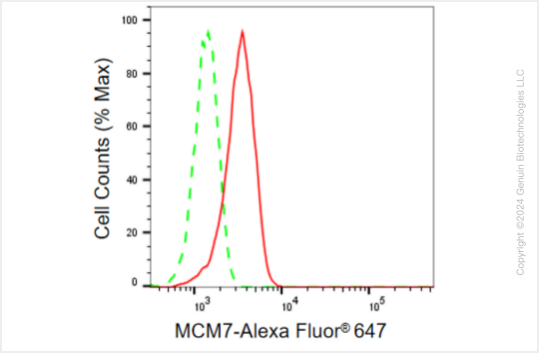
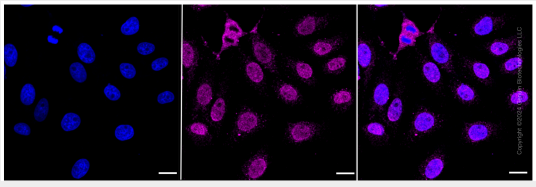


Western blotting analysis using anti-MCM7 antibody (Cat#AGI2303). MCM7 expression in wild type (WT) and MCM7 shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. GAPDH serves as a loading control. The blot was incubated with anti-MCM7 antibody (Cat#AGI2303, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of MCM7 expression in HepG2 cells using MCM7 antibody (Cat#AGI2303, 1:2,000). Green, isotype control; red, MCM7.



Immunocytochemical staining of HepG2 cells with MCM7 antibody (Cat#AGI2303, 1:1,000). Nuclei were stained blue with DAPI; MCM7 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.