10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-MCM3 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1256

Specification

KD-Validated Anti-MCM3 Rabbit Monoclonal Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P25205
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 91 kDa , observed, 100 kDa KDa**
Gene Name	**MCM3**
Aliases	**MCM3; Minichromosome Maintenance Complex Component 3; DNA Polymerase Alpha Holoenzyme-Associated Protein P1; DNA Replication Licensing Factor MCM3; RLF Subunit Beta; P1-MCM3; P102; MCM3 Minichromosome Maintenance Deficient 3 (S. Cerevisiae); Minichromosome Maintenance Deficient (S. Cerevisiae) 3; MCM3 Minichromosome Maintenance Deficient 3; Replication Licensing Factor, Beta Subunit; Minichromosome Maintenance Deficient 3; Cervical Cancer Proto-Oncogene 5; DNA Replication Factor MCM3; HRlf Beta Subunit; EC 3.6.4.12; HCC5; P1.H; RLFB**
Immunogen	**A synthesized peptide derived from human MCM3**

KD-Validated Anti-MCM3 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**4172**

Other Names
DNA replication licensing factor MCM3, 3.6.4.12, DNA polymerase alpha holoenzyme-associated protein P1, P1-MCM3, RLF subunit beta, p102, MCM3 (HGNC:6945)

KD-Validated Anti-MCM3 Rabbit Monoclonal Antibody - Protein Information

Name MCM3 (HGNC:6945)

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:32453425, PubMed:34694004, PubMed:34700328, PubMed:35585232). 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 the entry in S phase and for cell division (Probable).

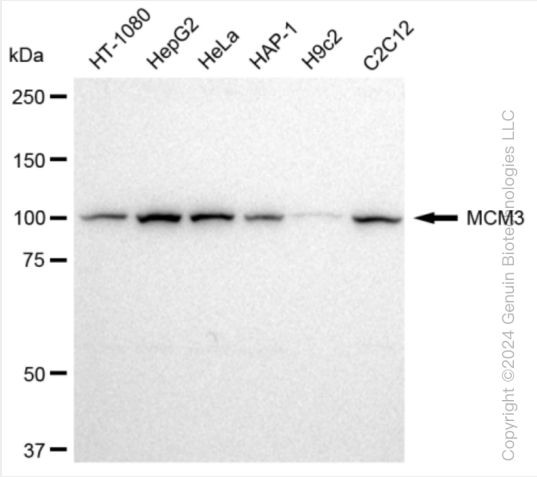
Cellular Location
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

KD-Validated Anti-MCM3 Rabbit Monoclonal Antibody - Protocols

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

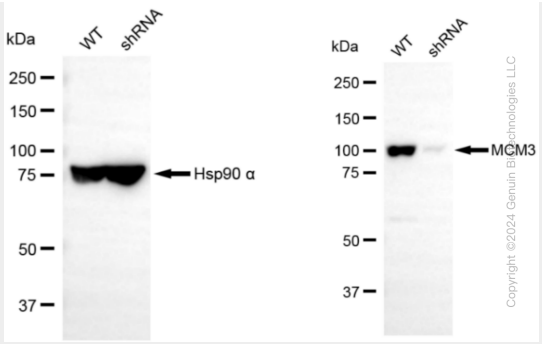
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-MCM3 Rabbit Monoclonal Antibody - Images

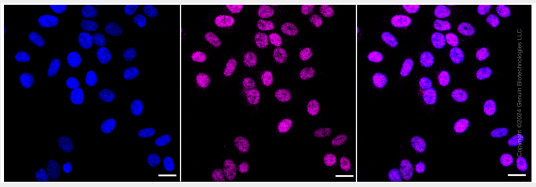


Western blotting analysis using anti-MCM3 antibody (Cat#AGI1256). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-MCM3 antibody (Cat#AGI1256, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blotting analysis using anti-MCM3 antibody (Cat#AGI1256). MCM3 expression in wild type (WT) and MCM3 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-MCM3 antibody (Cat#AGI1256, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Immunocytochemical staining of HepG2 cells with MCM3 antibody (Cat#AGI1256, 1:1,000). Nuclei were stained blue with DAPI; MCM3 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.