10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-MCM7 Antibody
Mouse Monoclonal Antibody
Catalog # AH13387

Specification

Anti-MCM7 Antibody - Product Information

Application	**,1,14,3,4,**
Primary Accession	P33993
Other Accession	438720
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2b**
Calculated MW	**81308**

Anti-MCM7 Antibody - Additional Information

Gene ID 4176

Other Names
CDC47; DNA replication licensing factor MCM7; MCM7 mini chromosome maintenance deficient 7; Mini chromosome Maintenance 7; Mini chromosome maintenance protein 7; P1.1-MCM3; P1CDC47; P85MCM; PNAS146

Format
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
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-MCM7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-MCM7 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:32453425, PubMed:34694004, PubMed:<a

href="http://www.uniprot.org/citations/34700328" target="_blank">34700328, PubMed:35585232, PubMed:25661590, 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.

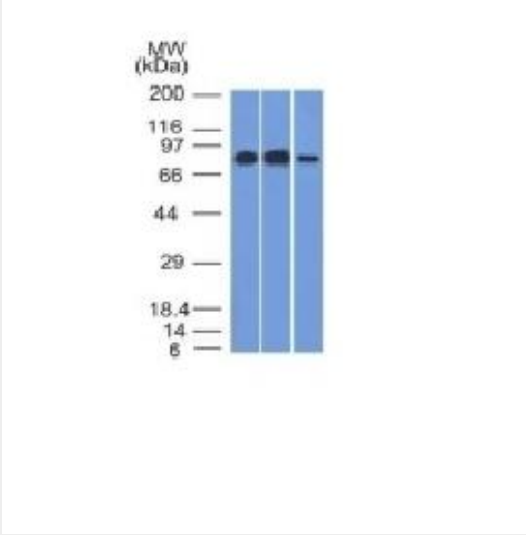
Cellular Location
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

Anti-MCM7 Antibody - Protocols

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

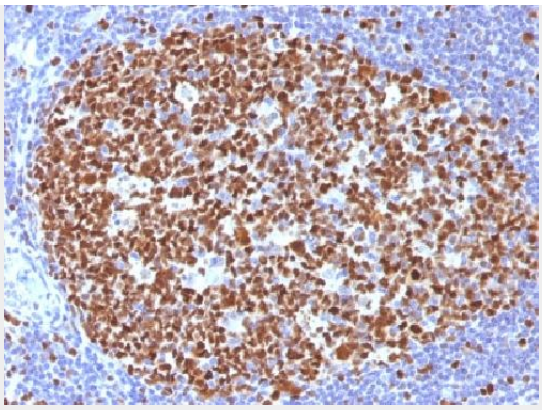
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MCM7 Antibody - Images



Western Blot Analysis A) HeLa (B) Raji and C) HepG2 Cell Lysate Using MCM7 Monoclonal Antibody (MCM7/1466).

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Formalin-fixed, paraffin-embedded human Tonsil stained with MCM7 Monoclonal Antibody (MCM7/1466).

Anti-MCM7 Antibody - Background

MCM7 is one of the highly conserved mini-chromosome maintenance proteins (MCM) that is essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by the MCM proteins is a key component of the pre-replication complex and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. The MCM complex consisting of this protein and MCM2, 4 and 6 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. Cyclin D1-dependent kinase, CDK4, is found to associate with this protein, and may regulate the binding of this protein with the tumor suppressor protein RB1/RB.