

DESCRIPTION

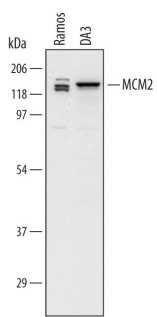
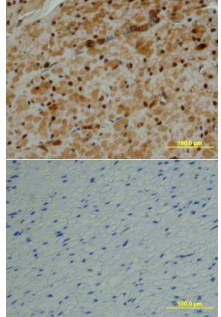
Species Reactivity	Human/Mouse
Specificity	Detects human and mouse MCM2 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human MCM2 Asp143-Ser296 Accession # P49736
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human/Mouse MCM2 by Western Blot. Western blot shows lysates of Ramos human Burkitt's lymphoma cell line and DA3 mouse myeloma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse MCM2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5778) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for MCM2 at approximately 125kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>MCM2 in Human Colon. MCM2 was detected in immersion fixed paraffin-embedded sections of human colon array using Goat Anti-Human/Mouse MCM2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5778) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

MCM2 (Minichromosome maintenance protein 2; also BM28) is a member of the MCM family of proteins. Although its predicted MW is 102 kDa, it runs anomalously at 125 kDa in SDS-PAGE. MCM2 forms a large, 450-600 kDa prereplication complex with MCM3 through 7 plus HBO1, and associates with the ORC to initiate DNA synthesis. Human MCM2 is 904 amino acids (aa) in length (Accession # P49736). It contains one C4-type zinc finger region (aa 329-355) and a P-loop NTPase region (aa 485-659) and at least 12 Ser/Thr phosphorylation sites in the N-terminal one-third of the molecule. MCM2 has several potential isoforms. There is an alternate start site at Met10 with or without a 47 aa substitution for aa 109-157, a deletion of aa 31-126, a Gly substitution for aa 113-132 coupled with a 69 aa insertion after Lys476, and a seven aa substitution for aa 1-137. Over aa 143-296, human MCM2 shares 99% aa identity with mouse MCM2.