**BACKGROUND**

The mini-chromosome maintenance (MCM) family of proteins include MCM2, MCM3, MCM4 (Cdc21), MCM5 (Cdc46), MCM6 (Mis5), MCM7 (Cdc47), MCM8, MCM9 and MCM10 (Dna43). The proteins in this family are regulators of DNA replication that act to ensure replication occurs only once in the cell cycle. Expression of MCM proteins increases during cell growth, peaking at G1 to S phase. MCM proteins are crucial components of the pre-replication complex (pre-RC) and are involved in replication fork formation and the recruitment of other DNA replication proteins. The MCM proteins each contain an ATP-binding motif, which is predicted to mediate ATP-dependent opening of double-stranded DNA. MCM proteins are regulated by E2F transcription factors, which induce MCM expression, and by protein kinases, which interact with MCM proteins to maintain the postreplicative state of the cell.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MCMDC1 (human) mapping to 6q22.31; (mouse) mapping to 10 B3.

**SOURCE**

MCM9 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MCM9 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47120 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**APPLICATIONS**

MCM9 (C-18) is recommended for detection of MCM9 isoforms 1 and 2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MCM9 (C-18) is also recommended for detection of MCM9 isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine. Suitable for use as control antibody for MCM9 siRNA (h): sc-61004, MCM9 siRNA (m): sc-61005, MCM9 shRNA Plasmid (h): sc-61004-SH, MCM9 shRNA Plasmid (m): sc-61005-SH, MCM9 shRNA (h) Lentiviral Particles: sc-61004-V and MCM9 shRNA (m) Lentiviral Particles: sc-61005-V.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2233 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarase: sc-2003 (0.5 ml agarase/2.0 ml), 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

MCM9 (C-18) sc-47120. Western blot analysis of MCM9 expression in non-transfected 293T: sc-117752 (A), human MCM9 transfected 293T: sc-114489 (B) and U-698-M (C) whole cell lysates.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.