Polyclonal Rabbit Anti-MCM4

Product Information

Material Number: 559544
Alternate Name: Minichromosome Maintenance Protein 4
Size: 0.1 ml
Clone: Polyclonal
Immunogen: Human MCM4 aa. 21-40 Peptide
Isotype: Rabbit Ig
Reactivity: QC Testing: Human
Reported: Mouse
Target MW: 97 kDa
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Minichromosome maintenance (MCM) proteins play an essential role for the initiation of eukaryotic DNA replication and bind with chromatin in vivo. They act as factors that ‘license’ DNA for exactly one round of replication per cell cycle. MCM proteins share a highly conserved domain of about 210 amino-acid residues. This domain shares some similarities with that of various other families of DNA-dependent ATPases which implies that MCM proteins may be involved in an ATP-consuming step in the initiation of DNA replication. Eukaryotes possess a family of six MCM proteins (MCM2, MCM3, MCM4, MCM5, MCM6 and MCM7) that contain this domain. MCM proteins were first identified in yeast where most of them have a direct role in the initiation of chromosomal DNA replication by interacting directly with autonomously replicating sequences (ARS). They were thus called 'minichromosome maintenance proteins' with gene symbols pre-fixed by MCM. Human MCM4, also called CDC21 or CDC54, is a nuclear protein that is highly phosphorylated in mitotic cells. The phosphorylated form of MCM4 appears to be less tightly bound to nuclear structures than the underphosphorylated form suggesting that phosphorylation/dephosphorylation reactions may determine the nuclear distribution of the protein. In HeLa cells, MCM protein levels remain relatively constant except for fluctuations during the G0 to G1/S period whereby in G0, MCM2 and MCM5 are found at much lower concentrations when compared to MCM3 and MCM7.

Western blot analysis of human minichromosome maintenance proteins (MCMs). HeLa cell (human cervical epithelial carcinoma, ATCC CCL-2) nuclear extracts were probed with antibodies to MCM2 (lane 1), MCM3 (lane 2), MCM4 (lane 3), MCM5 (lane 4), MCM6 (lane 5), or MCM7 (lane 6) using dilutions of 1:2000-1:6000.

Preparation and Storage

Store undiluted at 4°C.

Application Notes

Application

| Western blot | Routinely Tested |

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml
### Suggested Companion Products

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<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>554021</td>
<td>HRP Goat Anti-Rabbit Ig</td>
<td>1.0 ml</td>
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### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

### References


