

**FoxM1 (D12D5) XP<sup>®</sup> Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IF-IC	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 110	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q08050	<b>Entrez-Gene Id:</b> 2305
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**Product Usage Information****Application**

Western Blotting  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:100

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

FoxM1 (D12D5) XP<sup>®</sup> Rabbit mAb detects endogenous levels of total FoxM1 protein. This antibody is predicted to recognize all three isoforms (FoxM1a, FoxM1b and FoxM1c).

**Source / Purification Background**

Monoclonal antibody is produced by immunizing animals with recombinant protein to human FoxM1b.

Forkhead box M1 (FoxM1) is a forkhead box family transcription factor that regulates a number of genes throughout the cell cycle to help control DNA replication, mitosis, and cell proliferation. FoxM1 expression increases during G1 and S and reaches maximum levels in G2/M (1-3). Nuclear translocation occurs just before entry into G2/M and is associated with FoxM1 phosphorylation (4). Phosphorylation of FoxM1 by MAPK (Ser331, Ser704), Cyclin/Cdk (Ser4, Ser35, Thr600, Thr611, Thr620, Thr627, Ser638), Plk1 (Ser715, Ser724), and Chk2 (Ser376) stabilizes and activates FoxM1 (4-8). Forkhead box M1 is expressed in all embryonic tissues but is restricted to proliferating tissues in adults (9). Research studies show that FoxM1 expression is negatively regulated by p53 (10,11). Upregulation of FoxM1 is associated with many human cancers, including prostate, breast, lung, ovary, colon, pancreas, stomach, bladder, liver, and kidney, and may be associated with p53 mutations in some tumors (11,12). As a result, FoxM1 inhibitors have become a topic of interest for potential cancer therapy (13).

**Background References**

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4. Ma, R.Y. et al. (2005) *J Cell Sci* 118, 795-806.
5. Laoukili, J. et al. (2008) *Mol Cell Biol* 28, 3076-87.
6. Fu, Z. et al. (2008) *Nat Cell Biol* 10, 1076-82.
7. Tan, Y. et al. (2007) *Mol Cell Biol* 27, 1007-16.
8. Anders, L. et al. (2011) *Cancer Cell* 20, 620-34.
9. Ye, H. et al. (1997) *Mol Cell Biol* 17, 1626-41.
10. Barsotti, A.M. and Prives, C. (2009) *Oncogene* 28, 4295-305.
11. Pandit, B. et al. (2009) *Cell Cycle* 8, 3425-7.
12. Pilarsky, C. et al. (2004) *Neoplasia* 6, 744-50.
13. Gartel, A.L. (2008) *Expert Opin Ther Targets* 12, 663-5.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human

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