



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C  
#4656

## Cyclin A2 (BF683) Mouse mAb

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

<b>Applications:</b> W	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 55	<b>Source/Isotype:</b> Mouse IgE	<b>UniProt ID:</b> #P20248	<b>Entrez-Gene Id:</b> 890
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### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:2000

### 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

Cyclin A2 (BF683) Mouse mAb detects endogenous levels of cyclin A2 and does not cross-react with other cyclins or Cyclin A1.

### Source / Purification Background

Monoclonal antibody is produced by immunizing animals with a recombinant human cyclin A2 protein.

While overcoming the G1/S checkpoint to commence DNA replication requires cyclin E, and traversing the G2/M checkpoint to initiate mitosis requires cyclin B to be present, cyclin A seems to be required for both S-phase and M-phase (1). A number of studies have described the ability of overexpressed cyclin A to accelerate the G1 to S transition, causing DNA replication, and cyclin A antisense DNA can prevent DNA replication (2-4). Cyclin A availability is apparently the rate-limiting step for entry into mitosis, and cyclin A is required for the completion of prophase (5). At late prophase, cyclin A may no longer be necessary as cdc2/cyclinB1 becomes active (5).

### Background References

- Pagano, M. et al. (1992) *EMBO. J.* 11, 961-71.
- Resnitzky, D. et al. (1995) *Mol. Cell. Biol.* 15, 4347-52.
- d'Urso, G. et al. (1990) *Science* 250, 786-91.
- Zindy, F. et al. (1992) *Biochem. Biophys. Res. Commun.* 182, 1144-54.
- Furuno, N. et al. (1999) *J. Cell. Biol.* 147, 295-306.

### 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human

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