Background: 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 over-expressed 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 completion of prophase (5). At late prophase, cyclin A may no longer be necessary as cdc2/cyclinB1 becomes active (5).

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

Background References:

Recommended Antibody Dilutions:
Western blotting 1:2000
For application specific protocols please see the web page for this product at www.cellsignal.com.
Please visit www.cellsignal.com for a complete listing of recommended companion products.

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