**Cdc123 (G-10): sc-365596**

**BACKGROUND**

The eukaryotic cell division cycle consists of a number of gene-controlled sequences that involve cyclin dependent kinases (Cdks) and cell division control (Cdc) proteins. Cdc123 (cell division cycle protein 123), also known as D123, is a 336 amino acid cytoplasmic protein that is involved in cell cycle control. Widely expressed with high expression in thymus, spleen, ovary, testis, small intestine and leukocytes, Cdc123 functions to destabilize Chfr (checkpoint with forkhead and ring finger domain) proteins which, when accumulated, block the G to S phase transition. Cdc123 prevents the Chfr proteins from collecting in the cell, thereby allowing the cell to enter the S phase. Due to its role in cell cycle control, Cdc123 is thought to be a basal marker for luminal breast cancers.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CDC123 (human) mapping to 10p13; Cdc123 (mouse) mapping to 2A1.

**SOURCE**

Cdc123 (G-10) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Cdc123 of human origin.

**PRODUCT**

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

**APPLICATIONS**

Cdc123 (G-10) is recommended for detection of Cdc123 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Cdc123 siRNA (h): sc-90774, Cdc123 siRNA (m): sc-142205, Cdc123 shRNA Plasmid (h): sc-90774-SH, Cdc123 shRNA Plasmid (m): sc-142205-SH, Cdc123 shRNA (h) Lentiviral Particles: sc-90774-V and Cdc123 shRNA (m) Lentiviral Particles: sc-142205-V.

Molecular Weight of Cdc123: 39 kDa.

Positive Controls: Cdc123 (m3): 293T Lysate: sc-126610 or AML-193 whole cell lysate: sc-364182.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). Molecular Weight of Cdc123: 39 kDa.

**DATA**

Cdc123 (G-10): sc-365596, Western blot analysis of Cdc123 expression in non-transfected: sc-117793 (A) and mouse Cdc123 transfected: sc-126610 (B) 293T 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.

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.