

# Chfr (H-300): sc-28263

## BACKGROUND

The forkhead-associated (FHA) domain was initially identified in transcription factors that have forkhead DNA-binding domains and in protein kinases, but many cell-cycle checkpoint proteins, including Chfr (checkpoint with forkhead and ring finger domains) contain FHA domains. Chfr defines a checkpoint that delays entry into metaphase in response to mitotic stress. Normal primary cells and tumor cell lines that express wild-type Chfr exhibit delayed entry into metaphase when centrosome separation is inhibited by mitotic stress. Additionally, Chfr seems to be required for delaying prophase in human cells. The sequence of Chfr is similar to that of the fission yeast DMA1, which is involved in a later mitotic checkpoint that delays a cell's exit from mitosis in response to spindle damage.

## REFERENCES

1. Jha, M.N., et al. 1994. Cell cycle arrest by Colcemid differs in human normal and tumor cells. *Cancer Res.* 54: 5011-5015.
2. Hofmann, K. and Bucher, P. 1995. The FHA domain: a putative nuclear signalling domain found in protein kinases and transcription factors. *Trends Biochem. Sci.* 20: 347-349.
3. Murone, M. and Simanis, V. 1996. The fission yeast dma1 gene is a component of the spindle assembly checkpoint, required to prevent septum formation and premature exit from mitosis if spindle function is compromised. *EMBO J.* 15: 6605-6616.
4. Cortez, D. and Elledge, S.J. 2000. Conducting the mitotic symphony. *Nature* 406: 354-356.
5. Scolnick, D.M. and Halazonetis, T.D. 2000. Chfr defines a mitotic stress checkpoint that delays entry into metaphase. *Nature* 406: 430-435.
6. Tokunaga, E., et al. 2006. Aberrant hypermethylation of the promoter region of the CHFR gene is rare in primary breast cancer. *Breast Cancer Res. Treat.* 97: 199-203.
7. Kobayashi, C., et al. 2006. Aberrant expression of CHFR in malignant peripheral nerve sheath tumors. *Mod. Pathol.* 19: 524-532.
8. Koga, Y., et al. 2006. The significance of aberrant CHFR methylation for clinical response to microtubule inhibitors in gastric cancer. *J. Gastroenterol.* 41: 133-139.
9. Yanokura, M., et al. 2007. Relationship of aberrant DNA hypermethylation of CHFR with sensitivity to taxanes in endometrial cancer. *Oncol. Rep.* 17: 41-48.

## CHROMOSOMAL LOCATION

Genetic locus: CHFR (human) mapping to 12q24.33; Chfr (mouse) mapping to 5 F.

## SOURCE

Chfr (H-300) is a rabbit polyclonal antibody raised against amino acids 324-623 mapping at the C-terminus of Chfr of human origin.

## PRODUCT

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

## APPLICATIONS

Chfr (H-300) is recommended for detection of Chfr of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

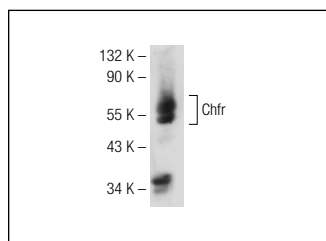
Chfr (H-300) is also recommended for detection of Chfr in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Chfr siRNA (h): sc-37567, Chfr siRNA (m): sc-142325, Chfr shRNA Plasmid (h): sc-37567-SH, Chfr shRNA Plasmid (m): sc-142325-SH, Chfr shRNA (h) Lentiviral Particles: sc-37567-V and Chfr shRNA (m) Lentiviral Particles: sc-142325-V.

Molecular Weight of Chfr isoforms: 73/72/69/64 kDa.

Positive Controls: ES-2 cell lysate: sc-24674.

## DATA



Chfr (H-300): sc-28263. Western blot analysis of Chfr expression in ES-2 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Castiel, A., et al. 2011. The Stil protein regulates centrosome integrity and mitosis through suppression of Chfr. *J. Cell Sci.* 124: 532-539.

## 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **Chfr (L2): sc-81832**, our highly recommended monoclonal alternative to Chfr (H-300).