

GCDFP-15 (C-12): sc-377171

BACKGROUND

Gross cystic disease fluid protein 15 (GCDFP-15) is a major protein component of benign breast gross cysts. It is a known marker of breast cancer, as it is found in approximately 50% of all breast cancer specimens. GCDFP-15, also known as PIP, for prolactin inducible protein, is a prolactin and androgen controlled protein. It is detectable in saliva, tears, sweat, seminal plasma, submucosal glands of the lung and amniotic fluid. PIP, the gene encoding GCDFP-15 is expressed in exocrine glands and, in pathologic conditions, in breast cysts and breast cancers exhibiting apocrine features. The PIP gene maps to the long arm of chromosome 7, a region frequently altered in mammary tumors.

REFERENCES

1. Haagensen, D.E., Jr., et al. 1979. Breast gross cystic disease fluid analysis. I. Isolation and radioimmunoassay for a major component protein. *J. Natl. Cancer Inst.* 62: 239-247.
2. Haagensen, D.E., Jr., et al. 1980. Analysis of amniotic fluid, maternal plasma, and cord blood for a human breast gross cystic disease fluid protein. *Am. J. Obstet. Gynecol.* 138: 25-32.
3. Mazoujian, G., et al. 1983. Immunohistochemistry of a gross cystic disease fluid protein (GCDFP-15) of the breast. A marker of apocrine epithelium and breast carcinomas with apocrine features. *Am. J. Pathol.* 110: 105-112.
4. Loos, S., et al. 1999. Regulation of GCDFP-15 expression in human mammary cancer cells. *Int. J. Mol. Med.* 4: 135-140.
5. Caputo, E., et al. 1999. Biosynthesis and immunobiochemical characterization of gp17/GCDFP-15. A glycoprotein from seminal vesicles and from breast tumors, in HeLa cells and in *Pichia pastoris* yeast. *Eur. J. Biochem.* 265: 664-670.
6. Satoh, F., et al. 2000. Immunohistochemical analysis of GCDFP-15 and GCDFP-24 in mammary and non-mammary tissue. *Breast Cancer* 7: 49-55.

CHROMOSOMAL LOCATION

Genetic locus: Pip (mouse) mapping to 6 B2.1.

SOURCE

GCDFP-15 (C-12) is a mouse monoclonal antibody raised against amino acids 1-146 representing full length GCDFP-15 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GCDFP-15 (C-12) is available conjugated to agarose (sc-377171 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377171 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377171 PE), fluorescein (sc-377171 FITC), Alexa Fluor® 488 (sc-377171 AF488), Alexa Fluor® 546 (sc-377171 AF546), Alexa Fluor® 594 (sc-377171 AF594) or Alexa Fluor® 647 (sc-377171 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377171 AF680) or Alexa Fluor® 790 (sc-377171 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

GCDFP-15 (C-12) is recommended for detection of GCDFP-15 of mouse 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 GCDFP-15 siRNA (m): sc-44723, GCDFP-15 shRNA Plasmid (m): sc-44723-SH and GCDFP-15 shRNA (m) Lentiviral Particles: sc-44723-V.

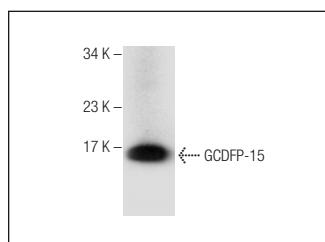
Molecular Weight of GCDFP-15: 15 kDa.

Positive Controls: mouse skin extract: sc-364251.

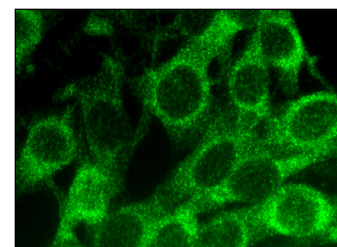
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GCDFP-15 (C-12): sc-377171. Western blot analysis of GCDFP-15 expression in mouse skin tissue extract.



GCDFP-15 (C-12): sc-377171. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

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.

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