## SANTA CRUZ BIOTECHNOLOGY, INC.

# 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

- Haagensen, D.E., Jr., et al. 1979. Breast gross cystic disease fluid analysis.
  Isolation and radioimmunoassay for a major component protein. J. Natl. Cancer Inst. 62: 239-247.
- 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.
- 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.
- Loos, S., et al. 1999. Regulation of GCDFP-15 expression in human mammary cancer cells. Int. J. Mol. Med. 4: 135-140.
- 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.
- 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  $\mu g$   $lgG_{2b}$  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<sup>®</sup> 488 (sc-377171 AF488), Alexa Fluor<sup>®</sup> 546 (sc-377171 AF546), Alexa Fluor<sup>®</sup> 594 (sc-377171 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-377171 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-377171 AF680) or Alexa Fluor<sup>®</sup> 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  $\mu$ g per 100-500  $\mu$ g 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> 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, \*\*D0 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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