

# GCDFP-15 (S-16): sc-25255

## 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 called PIP for prolactin inducible protein, is a prolactin and androgen controlled protein. GCDFP-15/PIP is detectable in saliva, tears, sweat, seminal plasma, submucosal glands of the lung and amniotic fluid. The PIP gene 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., Mazoujian, G., Dille, W.G., Pedersen, C.E., Kister, S.J. and Wells, S.A. Jr. 1979. Breast gross cystic disease fluid analysis. I. Isolation and radioimmunoassay for a major component protein. *J. Natl. Cancer Inst.* 62: 239-247.
- Haagensen, D.E. Jr., Gall, S.A., Brazy, J.E., Giannola, J. and Wells, S.A. Jr. 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., Pinkus, G.S., Davis, S. and Haagensen, D.E. Jr. 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., Schulz, K.D. and Hackenberg, R. 1999. Regulation of GCDFP-15 expression in human mammary cancer cells. *Int. J. Mol. Med.* 4: 135-140.
- Caputo, E., Carratore, V., Ciullo, M., Tiberio, C., Mani, J.C., Piatier-Tonneau, D. and Guardiola, J. 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., Umemura, S. and Osamura, R.Y. 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 (human) mapping to 7q34.

## SOURCE

GCDFP-15 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GCDFP-15 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.

Blocking peptide available for competition studies, sc-25255 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GCDFP-15 (S-16) is recommended for detection of GCDFP-15 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (h): sc-40631, GCDFP-15 shRNA Plasmid (h): sc-40631-SH and GCDFP-15 shRNA (h) Lentiviral Particles: sc-40631-V.

Molecular Weight of GCDFP-15: 15 kDa .

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **GCDFP-15 (0.N.307): sc-59544**, our highly recommended monoclonal alternative to GCDFP-15 (S-16).