

GCDFP-15 (23A3): sc-59545

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

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- 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.
- Lee, B., et al. 2002. Identification of mouse submaxillary gland protein in mouse saliva and its binding to mouse oral bacteria. *Arch. Oral Biol.* 47: 327-332.
- Autiero, M., et al. 2002. Intragenic amplification and formation of extra-chromosomal small circular DNA molecules from the PIP gene on chromosome 7 in primary breast carcinomas. *Int. J. Cancer* 99: 370-377.

CHROMOSOMAL LOCATION

Genetic locus: PIP (human) mapping to 7q34.

SOURCE

GCDFP-15 (23A3) is a mouse monoclonal antibody raised against recombinant GCDFP-15 of human origin.

PRODUCT

Each vial contains 250 µl culture supernatant containing IgG_{2a} with < 0.1% sodium azide.

APPLICATIONS

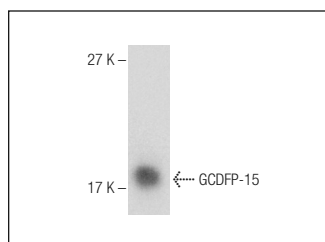
GCDFP-15 (23A3) is recommended for detection of GCDFP-15 of human and rat origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:1000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:500); may cross-react with breast carcinoma, salivary duct carcinoma and apocrine epithelia.

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.

Positive Controls: T-47D whole cell lysate: sc-364193.

DATA



GCDFP-15 (23A3): sc-59545. Western blot analysis of GCDFP-15 expression in T-47D whole cell lysate.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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