

# Mammaglobin B (E-17): sc-48331

## BACKGROUND

Secretoglobins (Lipophilins, Mammaglobins) are small secreted proteins of endocrine-responsive organs and mucosal epithelia that form multimeric complexes and correlate with the development of various human cancers. Lipophilin A (LIPA, LPHA, secretoglobin, family 1D, member 1; SCGB1D1) and Lipophilin B (LIPB, LPHB, secretoglobin, family 1D, member 2; SCGB1D2) are orthologs of prostatein (estramustine-binding protein), the major secretory glycoprotein of the rat ventral prostate gland. Lipophilin A is a component of a heterodimeric molecule present in human tears. Lipophilin B mRNA can be overexpressed in breast tumors and shows a high degree of correlation with the mRNA expression profile of mammaglobin. Mammaglobin A (MGB1, secretoglobin, family 2A, member 2; SCGB2A2) and Mammaglobin B (MGB2, lipophilin C, LPHC, UGB3, SCGB2A1) histological detection in breast tissue is a reliable diagnostic marker for breast tumors.

## REFERENCES

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- Gow, A. 1997. Redefining the Lipophilin family of proteolipid proteins. *J Neurosci. Res.* 50: 659-664.
- Lehrer, R.I., et al. 1998. Lipophilin, a novel heterodimeric protein of human tears. *FEBS Lett.* 432: 163-167.
- Carter, D., et al. 2002. Purification and characterization of the Mammaglobin/Lipophilin B complex, a promising diagnostic marker for breast cancer. *Biochemistry* 41: 6714-6722.
- Carter, D., et al. 2003. Serum antibodies to Lipophilin B detected in late stage breast cancer patients. *Clin. Cancer Res.* 9: 749-754.
- Carreira, N., et al. 2004. Highly sensitive detection of the MGB1 transcript (Mammaglobin) in the peripheral blood of breast cancer patients. *Int. J. Cancer* 108: 592-595.
- Ouellette, R.J., et al. 2004. RT-PCR for Mammaglobin genes, MGB1 and MGB2, identifies breast cancer micrometastases in sentinel lymph nodes. *Am. J. Clin. Pathol.* 121: 637-643.
- Sjodin, A., et al. 2005. Secretoglobins in the human pituitary: high expression of Lipophilin B and its downregulation in pituitary adenomas. *Acta Neuropathol.* 109: 381-386.

## CHROMOSOMAL LOCATION

Genetic locus: SCGB2A2 (human) mapping to 11q12.3.

## SOURCE

Mammaglobin B (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Mammaglobin B of human origin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## 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-48331 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Mammaglobin B (E-17) is recommended for detection of Mammaglobin B 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

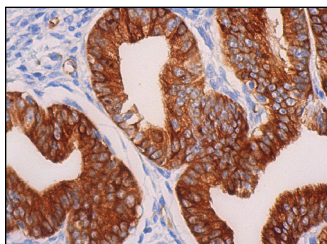
Suitable for use as control antibody for Mammaglobin B siRNA (h): sc-45749, Mammaglobin B shRNA Plasmid (h): sc-45749-SH and Mammaglobin B shRNA (h) Lentiviral Particles: sc-45749-V.

Molecular Weight of Mammaglobin B: 9 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Mammaglobin B (E-17): sc-48331. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pre-menopausal uterus tissue showing cytoplasmic staining of glandular cells.

## 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.