

Lipophilin A (C-20): sc-48324

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 and Lipophilin B are orthologs of prostatein (estramustine-binding protein), the major secretory glycoprotein of the rat ventral prostate gland. Lipophilin A, also designated LIPA, LPHA and secretoglobulin, family 1D, member 1 (SCGB1D1), is a component of a heterodimeric molecule present in human tears. Lipophilin B, also designated LIPB, LPHB and secretoglobulin, family 1D, member 2 (SCGB1D2), mRNA can be overexpressed in breast tumors and shows a high degree of correlation with the mRNA expression profile of mammaglobin. Histological detection in breast tissue of Mammaglobin A, also designated MGB1 and secretoglobulin, family 2A, member 2 (SCGB2A2) and Mammaglobin B, also designated MGB2, Lipophilin C, LPHC, UGB3 and SCGB2A2, 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.
- Cerveira, 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: SCGB1D1 (human) mapping to 11q12.3.

SOURCE

Lipophilin A (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Lipophilin A 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-48324 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lipophilin A (C-20) is recommended for detection of Lipophilin A 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 Lipophilin A siRNA (h): sc-45743, Lipophilin A shRNA Plasmid (h): sc-45743-SH and Lipophilin A shRNA (h) Lentiviral Particles: sc-45743-V.

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.

SELECT PRODUCT CITATIONS

- Versura, P., et al. 2010. Tear proteomics in evaporative dry eye disease. *Eye* 24: 1396-1402.
- Versura, P., et al. 2012. A rapid standardized quantitative microfluidic system approach for evaluating human tear proteins. *Mol. Vis.* 18: 2526-2537.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.