

# Lipocalin-1 (B-9): sc-398984

## BACKGROUND

Lipocalin-1 is a secretory protein that is highly expressed in fluids covering epithelial surfaces such as tears and respiratory secretions. This major lipid-binding protein in tears is also called tear lipocalin (TL) and von Ebner's gland protein (VEG), as it is also a major secretion of these lingual salivary glands. In addition to lacrimal glands and lingual glands, Lipocalin-1 is secreted by nasal mucosal glands, secretory glands of the tracheobronchial tract, sweat glands, mammary glands, adrenal gland, prostate, thymus, testis and corticotrophs of the pituitary gland. Specifically, Lipocalin-1 functions to stabilize the lipid film of human tear fluid by removing harmful lipids from the human corneal surface and delivering them to the aqueous phase of tears. Lipocalin-1 may also function as a transporter of hydrophobic molecules such as bitter substances on the tongue.

## REFERENCES

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- Blaker, M., et al. 1993. Molecular cloning of human von Ebner's gland protein, a member of the lipocalin superfamily highly expressed in lingual salivary glands. *Biochim. Biophys. Acta* 1172: 131-137.
- Kock, K., et al. 1994. Denatonium bitter tasting among transgenic mice expressing rat von Ebner's gland protein. *Physiol. Behav.* 56: 1173-1177.
- Schenkels, L.C., et al. 1995. EP-GP and the lipocalin VEGh, two different human salivary 20-kDa proteins. *J. Dent. Res.* 74: 1543-1550.
- Wojnar, P., et al. 2001. Molecular cloning of a novel Lipocalin-1 interacting human cell membrane receptor using phage display. *J. Biol. Chem.* 276: 20206-20212.
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- Azzarolo, A.M., et al. 2004. Presence of tear lipocalin and other major proteins in lacrimal fluid of rabbits. *Comp. Biochem. Physiol. B Biochem. Mol. Biol.* 138: 111-117.
- Gasymov, O.K., et al. 2005. Tear lipocalin: evidence for a scavenging function to remove lipids from the human corneal surface. *Invest. Ophthalmol. Vis. Sci.* 46: 3589-3596.

## CHROMOSOMAL LOCATION

Genetic locus: LCN1 (human) mapping to 9q34.3.

## SOURCE

Lipocalin-1 (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 37-59 near the N-terminus of Lipocalin-1 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<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398984 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Lipocalin-1 (B-9) is recommended for detection of Lipocalin-1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 Lipocalin-1 siRNA (h): sc-45477, Lipocalin-1 shRNA Plasmid (h): sc-45477-SH and Lipocalin-1 shRNA (h) Lentiviral Particles: sc-45477-V.

Molecular Weight of Lipocalin-1: 20 kDa.

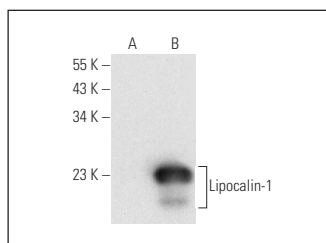
Positive Controls: human Lipocalin-1 transfected HEK293T whole cell lysate.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 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™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Lipocalin-1 (B-9): sc-398984. Western blot analysis of Lipocalin-1 expression in non-transfected (A) and human Lipocalin-1 transfected (B) HEK293T whole cell lysates.

## RESEARCH USE

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