SANTA CRUZ BIOTECHNOLOGY, INC.

Lipocalin-1 (N-13): sc-34682

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 corti-cotrophs 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

1. Schmale, H., et al. 1990. Possible role for salivary gland protein in taste reception indicated by homology to lipophilic-ligand carrier proteins. Nature 343: 366-369.
2. 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.
3. Kock, K., et al. 1994. Denatonium bitter tasting among transgenic mice expressing rat von Ebner's gland protein. Physiol. Behav. 56: 1173-1177.
4. 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.
5. 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.
6. Fluckinger, M., et al. 2004. Human tear lipocalin exhibits antimicrobial activity by scavenging microbial siderophores. Antimicrob. Agents Chemother. 48: 3367-3372.
7. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Lipocalin-1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Lipocalin-1 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-34682 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lipocalin-1 (N-13) is recommended for detection of Lipocalin-1 of human origin by Western Blotting (starting dilution 1:200, 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).

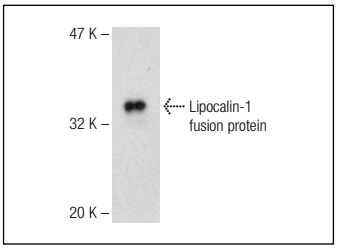
Suitable for use as control antibody for Lipocalin-1 siRNA (h): sc-45477, Lipocalin-1 shRNA Plasmid (h): sc-45477-SH and Lipocalin-1 shRNA (h) Lentiviral Particles: sc-45477-V.

Molecular Weight of Lipocalin-1: 20 kDa.

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) Immunoprecip-itation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Lipocalin-1 (N-13): sc-34682. Western blot analysis of human recombinant Lipocalin-1 fusion protein.

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.

MONOS Satisfaction Guaranteed

Try **Lipocalin-1 (H-8): sc-374620** or **Lipocalin-1 (B-9): sc-398984**, our highly recommended monoclonal alternatives to Lipocalin-1 (N-13).