



Lipocalin-6 (P-15): sc-107688

BACKGROUND

The Lipocalin family is composed of structurally conserved hydrophobic ligand binding proteins and is represented in all major taxonomic groups from prokaryotes to primates. Members of the lipocalin family are characterized by several common molecular-recognition properties: the ability to bind a range of small hydrophobic molecules, binding to specific cell-surface receptors and the formation of complexes with soluble macromolecules. Lipocalin-6, also known as LCN5, hLcn5, UNQ643 or LCN6, is a 163 amino acid protein that is predominantly expressed in epididymis. Lipocalin-6 localizes to the head and tail of spermatozoa, with the highest concentration on the post-acrosomal region of the head. Belonging to the calycin superfamily, Lipocalin-6 may play a role in sperm maturation. The gene encoding Lipocalin-6 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome.

REFERENCES

- 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.
- Flower, D.R. 1995. Multiple molecular recognition properties of the lipocalin protein family. *J. Mol. Recognit.* 8: 185-195.
- Flower, D.R. 1996. The lipocalin protein family: structure and function. *Biochem. J.* 318 Pt 1: 1-14.
- Yenugu, S., et al. 2003. Antibacterial properties of the sperm-binding proteins and peptides of human epididymis 2 (HE2) family; salt sensitivity, structural dependence and their interaction with outer and cytoplasmic membranes of *Escherichia coli*. *Biochem. J.* 372 Pt 2: 473-483.
- Hamil, K.G., et al. 2003. LCN6, a novel human epididymal lipocalin. *Reprod. Biol. Endocrinol.* 1: 112.
- Suzuki, K., et al. 2004. Molecular evolution of epididymal lipocalin genes localized on mouse chromosome 2. *Gene* 339: 49-59.
- Grzyb, J., et al 2006. Lipocalins-a family portrait. *J. Plant Physiol.* 163: 895-915.
- Suzuki, K., et al. 2007. Epididymis-specific lipocalin promoters. *Asian J. Androl.* 9: 515-521.
- Guo, C., et al. 2009. Soluble expression and characterization of a mouse epididymis-specific protein Lipocalin-6. *Protein Expr. Purif.* E-published.

CHROMOSOMAL LOCATION

Genetic locus: Lcn6 (mouse) mapping to 2 A3.

STORAGE

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

PROTOCOLS

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

SOURCE

Lipocalin-6 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Lipocalin-6 of mouse 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-107688 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lipocalin-6 (P-15) is recommended for detection of Lipocalin-6 of mouse and rat 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 Lipocalin-6 siRNA (m): sc-146751, Lipocalin-6 shRNA Plasmid (m): sc-146751-SH and Lipocalin-6 shRNA (m) Lentiviral Particles: sc-146751-V.

Molecular Weight of Lipocalin-6: 16 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.

RESEARCH USE

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