# LYZL6 (E-12): sc-164949



The Power to Questio

#### **BACKGROUND**

The origins of the lysozyme proteins date back an estimated 400 to 600 million years. Generally, lysozyme genes are relatively small, roughly 10 kilobases in length, and composed of four exons and three introns. Originally a bacteriolytic defensive agent, the function of this family of proteins adapted to serve a digestive function in its present forms. C-type lysozymes are specifically involved catalyzing the hydrolysis of  $\beta$ -1,4 glycosidic bonds of the peptidoglycan of bacterial cell walls. Lysozymes in tissues and body fluids are associated with the monocyte-macrophage system and enhance the activity of immunoagents. As a homolog of human C-type lysozyme, LYZL6 (Lysozyme-like protein 6) is a 148 amino acid secreted protein belonging to the glycosyl hydrolase 22 family. Due to its specific expression in human testis and epididymis, it is assumed that LYZL6 plays a role in the maturation and/or storage of sperm.

# **REFERENCES**

- Peters, C.W., Kruse, U., Pollwein, R., Grzeschik, K.H. and Sippel, A.E. 1989.
  The human lysozyme gene. Sequence organization and chromosomal localization. Eur. J. Biochem. 182: 507-516.
- 2. Prager, E.M. and Jollès, P. 1996. Animal lysozymes c and g: an overview. EXS 75: 9-31.
- 3. Qasba, P.K. and Kumar, S. 1997. Molecular divergence of lysozymes and  $\alpha$ -lactalbumin. Crit. Rev. Biochem. Mol. Biol. 32: 255-306.
- 4. Nomiyama, H., Fukuda, S., Iio, M., Tanase, S., Miura, R. and Yoshie, O. 1999. Organization of the chemokine gene cluster on human chromosome 17q11.2 containing the genes for CC chemokine MPIF-1, HCC-2, HCC-1, LEC, and RANTES. J. Interferon Cytokine Res. 19: 227-234.
- Liu, F. and Wen, Z. 2002. Cloning and expression pattern of the lysozyme C gene in zebrafish. Mech. Dev. 113: 69-72.
- 6. Zhang, K., Gao, R., Zhang, H., Cai, X., Shen, C., Wu, C., Zhao, S. and Yu, L. 2005. Molecular cloning and characterization of three novel lysozyme-like genes, predominantly expressed in the male reproductive system of humans, belonging to the c-type lysozyme/ $\alpha$ -lactalbumin family. Biol. Reprod. 73: 1064-1071.
- 7. Chapelle, M., Girard, P.A., Cousserans, F., Volkoff, N.A. and Duvic, B. 2009. Lysozymes and lysozyme-like proteins from the fall armyworm, *Spodoptera frugiperda*. Mol. Immunol. 47: 261-269.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612751. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

### **CHROMOSOMAL LOCATION**

Genetic locus: LYZL6 (human) mapping to 17q12; Lyzl6 (mouse) mapping to 11 E1.

### **SOURCE**

LYZL6 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LYZL6 of human origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164949 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

LYZL6 (E-12) is recommended for detection of LYZL6 of mouse, rat and 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); non cross-reactive with other LYZL family members.

LYZL6 (E-12) is also recommended for detection of LYZL6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LYZL6 siRNA (h): sc-93725, LYZL6 siRNA (m): sc-149196, LYZL6 shRNA Plasmid (h): sc-93725-SH, LYZL6 shRNA Plasmid (m): sc-149196-SH, LYZL6 shRNA (h) Lentiviral Particles: sc-93725-V and LYZL6 shRNA (m) Lentiviral Particles: sc-149196-V.

Molecular Weight of LYZL6: 17 kDa.

Positive Controls: human fetal lung tissue extract.

# **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.

## **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.

#### **PROTOCOLS**

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com