

# LYZL6 (Y-22): sc-133767

## 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.
- Prager, E.M. and Jollès, P. 1996. Animal lysozymes c and g: an overview. *EXS* 75: 9-31.
- Qasba, P.K. and Kumar, S. 1997. Molecular divergence of lysozymes and  $\alpha$ -lactalbumin. *Crit. Rev. Biochem. Mol. Biol.* 32: 255-306.
- 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 MIP1-1, 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.
- 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.
- 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.

## CHROMOSOMAL LOCATION

Genetic locus: LYZL6 (human) mapping to 17q12.

## SOURCE

LYZL6 (Y-22) is an affinity purified rabbit polyclonal antibody raised against synthetic LYZL6 peptide of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG in 500  $\mu$ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

LYZL6 (Y-22) is recommended for detection of LYZL6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

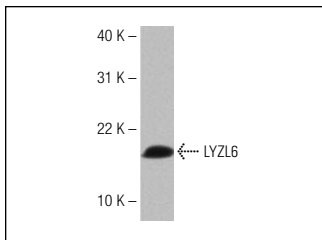
Molecular Weight of LYZL6: 17 kDa.

Positive Controls: human fetal lung tissue extract or human lung extract: sc-363767.

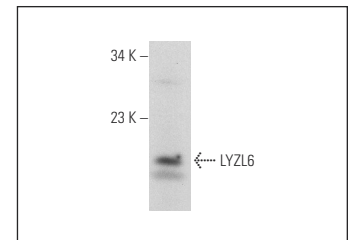
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



LYZL6 (Y-22): sc-133767. Western blot analysis of LYZL6 expression in human fetal lung tissue extract.



LYZL6 (Y-22): sc-133767. Western blot analysis of LYZL6 expression in human lung tissue extract.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.