## BACKGROUND

LANCL2 (LanC-like protein 2), also known as TASP (testis-specific adriamycin sensitivity protein) or GPR69B, is a 450 amino acid member of the LanC-like protein family. Localized to the nucleus, cytoplasm and cell membrane, LANCL2 is expressed highly in brain and testis. The gene that encodes LANCL2 maps to human chromosome 7 and is considered a bystander gene that is coamplified and overexpressed with EGFR in $20 \%$ of glioblastomas. Human chromosome 7 is about 158 milllion bases long, encodes over 1,000 genes and makes up about $5 \%$ of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the $q$ arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

## REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro $\alpha$ 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
3. Mayer, H., et al. 2001. Molecular cloning, characterization, and tissue-specific expression of human LANCL2, a novel member of the LanC-like protein family. DNA Seq. 12: 161-166.
4. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. Nature 424: 157-164.
5. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? Cell. Mol. Life Sci. 63: 1867-1875.
6. Landlinger, C., et al. 2006. Myristoylation of human LanC-like protein 2 (LANCL2) is essential for the interaction with the plasma membrane and the increase in cellular sensitivity to adriamycin. Biochim. Biophys. Acta 1758: 1759-1767.
7. Reis-Filho, J.S., et al. 2006. EGFR amplification and lack of activating mutations in metaplastic breast carcinomas. J. Pathol. 209: 445-453.
8. Brezinová, J., et al. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. Cancer Genet. Cytogenet. 173: 10-16.
9. Sturla, L., et al. 2009. LANCL2 is necessary for abscisic acid binding and signaling in human granulocytes and in rat Insulinoma cells. J. Biol. Chem. 284: 28045-28057.

## CHROMOSOMAL LOCATION

Genetic locus: LANCL2 (human) mapping to 7p11.2; Lancl2 (mouse) mapping to 6 B3.

## SOURCE

LANCL2 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LANCL2 of human origin.

## PRODUCT

Each vial contains $200 \mu \mathrm{ggG}$ in 1.0 ml of PBS with $<0.1 \%$ sodium azide and $0.1 \%$ gelatin.
Blocking peptide available for competition studies, sc-79565 P, (100 $\mu \mathrm{g}$ peptide in 0.5 ml PBS containing $<0.1 \%$ sodium azide and $0.2 \% \mathrm{BSA})$.

## APPLICATIONS

LANCL2 (P-15) is recommended for detection of LANCL2 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).

LANCL2 (P-15) is also recommended for detection of LANCL2 in additional species, including equine, canine, bovine, porcine and avian.
Suitable for use as control antibody for LANCL2 siRNA (h): sc-75407, LANCL2 siRNA (m): sc-75408, LANCL2 shRNA Plasmid (h): sc-75407-SH, LANCL2 shRNA Plasmid (m): sc-75408-SH, LANCL2 shRNA (h) Lentiviral Particles: sc-75407-V and LANCL2 shRNA (m) Lentiviral Particles: sc-75408-V.

Molecular Weight of LANCL2: 51 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 MarkerT ${ }^{\text {T }}$ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerT 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: 1:1001:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at $4^{\circ} \mathrm{C}$, **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.

