## SANTA CRUZ BIOTECHNOLOGY, INC.

# LCRG1 (D-14): sc-164839



### BACKGROUND

LCRG1 (laryngeal carcinoma-related protein 1), also known as GGNBP2 (gametogenetin-binding protein 2), LZK1 or ZNF403, is a 697 amino acid protein that may be involved in spermatogenesis. LCRG1 interacts with gametogenetin, a protein primarily expressed in testis and ovary. Localized in the cytoplasm, LCRG associates with vesicular structures. LCRG1 is expressed in brain, placenta, lung, liver and kidney, with highest levels found in heart, pancreas and skeletal muscle. LCRG1 is strongly down-regulated in 40% of primary laryngeal carcinoma and in six of ten various cancer cell lines. Phosphorylated on Serine 360, LCRG1 exists as three isoforms produced by alternative splicing events.

### REFERENCES

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- 3. Zhang, J., et al. 2005. Yeast two-hybrid screens imply that GGNBP1, GGNBP2 and OAZ3 are potential interaction partners of testicular germ cell-specific protein GGN1. FEBS Lett. 579: 559-566.
- Zhang, X., et al. 2006. Comparative proteomics analysis of the proteins associated with laryngeal carcinoma-related gene 1. Laryngoscope 116: 224-230.
- Dephoure, N., et al. 2008. A quantitative atlas of mitotic phosphorylation. Proc. Natl. Acad. Sci. USA 105: 10762-10767.
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- Aihara, T., et al. 2009. A novel potential role for gametogenetin-binding protein 1 (GGNBP1) in mitochondrial morphogenesis during spermatogenesis in mice. Biol. Reprod. 80: 762-770.

## CHROMOSOMAL LOCATION

Genetic locus: GGNBP2 (human) mapping to 17q12; Ggnbp2 (mouse) mapping to 11 C.

#### SOURCE

LCRG1 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LCRG1 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-164839 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

LCRG1 (D-14) is recommended for detection of LCRG1 of human origin and Ggnbp2 of mouse 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).

LCRG1 (D-14) is also recommended for detection of LCRG1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for LCRG1 siRNA (h): sc-93904, Ggnbp2 siRNA (m): sc-145389, LCRG1 shRNA Plasmid (h): sc-93904-SH, Ggnbp2 shRNA Plasmid (m): sc-145389-SH, LCRG1 shRNA (h) Lentiviral Particles: sc-93904-V and Ggnbp2 shRNA (m) Lentiviral Particles: sc-145389-V.

Molecular Weight of LCRG1 isoforms 1/2/3: 79/33/52 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) Immunofluo-rescence: 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.