# PRRT2 (S-12): sc-161172



The Power to Question

#### **BACKGROUND**

PRRT2 (proline-rich transmembrane protein 2) is a 340 amino acid multi-pass membrane protein belonging to the CD225 family. Existing as three alternatively spliced isoforms, the gene encoding PRRT2 maps to human chromosome 16p11.2 and mouse chromosome 7 F3. Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome, characterized by mental retardation and predisposition to tumor growth and white blood cell neoplasias, and Crohn's disease, a gastrointestinal inflammatory condition, are also associated with chromosome 16.

# **REFERENCES**

- Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. Clin. Genet. 23: 318-320.
- Breuning, M.H., Dauwerse, H.G., Fugazza, G., Saris, J.J., Spruit, L., Wijnen, H., Tommerup, N., van der Hagen, C.B., Imaizumi, K., Kuroki, Y., van den Boogaard, M.J., de Pater, J.M., Mariman, E.C., Hamel, B.C., Himmelbauer, H., Frischauf, A.M., Stallings, R., Beverstock, G.C., van Ommen, G.J. and Hennekam, R.C. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. Am. J. Hum. Genet. 52: 249-254.
- Bomont, P., Cavalier, L., Blondeau, F., Ben Hamida, C., Belal, S., Tazir, M., Demir, E., Topaloglu, H., Korinthenberg, R., Tüysüz, B., Landrieu, P., Hentati, F. and Koenig, M. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. Nat. Genet. 26: 370-374.
- Kuhlenbäumer, G., Young, P., Oberwittler, C., Hünermund, G., Schirmacher, A., Domschke, K., Ringelstein, B. and Stögbauer, F. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. Neurology 58: 1273-1276.
- 5. Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. Curr. Gastroenterol. Rep. 6: 467-473.
- Mathew, C.G. and Lewis, C.M. 2004. Genetics of inflammatory bowel disease: progress and prospects. Hum. Mol. Genet. 13: R161-R168.

## **CHROMOSOMAL LOCATION**

Genetic locus: PRRT2 (human) mapping to 16p11.2; Prrt2 (mouse) mapping to 7 F3.

# SOURCE

PRRT2 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of PRRT2 of human origin.

# **STORAGE**

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

#### **PRODUCT**

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

Blocking peptide available for competition studies, sc-161172 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

PRRT2 (S-12) is recommended for detection of PRRT2 of mouse 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 PRRT1 or PRRT3.

Suitable for use as control antibody for PRRT2 siRNA (h): sc-93160, PRRT2 siRNA (m): sc-152521, PRRT2 shRNA Plasmid (h): sc-93160-SH, PRRT2 shRNA Plasmid (m): sc-152521-SH, PRRT2 shRNA (h) Lentiviral Particles: sc-93160-V and PRRT2 shRNA (m) Lentiviral Particles: sc-152521-V.

Molecular Weight of PRRT2 isoforms: 35/40/31 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat lgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat lgG-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 lgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat lgG-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.

### **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 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**