

# CAT56 (P-15): sc-242315

## BACKGROUND

Proline-rich proteins are often involved in protein-protein interactions and typically act as ligands for SH3, WW and EVH1 domains. CAT56 (MHC class I region proline-rich protein CAT56), also known as PRR3 (proline rich 3), is a 188 amino acid protein that contains one C3H1-type zinc finger and exists as 2 alternatively spliced isoforms. The gene encoding CAT56 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

1. Brunner, H.G., van Beersum, S.E., Warman, M.L., Olsen, B.R., Ropers, H.H. and Mariman, E.C. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. *Hum. Mol. Genet.* 3: 1561-1564.
2. Cesari, R., Martin, E.S., Calin, G.A., Pentimalli, F., Bichi, R., McAdams, H., Trapasso, F., Drusco, A., Shimizu, M., Masciullo, V., D'Andrilli, G., Scambia, G., Picchio, M.C., Alder, H., Godwin, A.K. and Croce, C.M. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.
3. Bläker, H., Mechttersheimer, G., Sutter, C., Hertkorn, C., Kern, M.A., Rieker, R.J., Penzel, R., Schirmacher, P. and Kloor, M. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
4. Skibola, C.F., Bracci, P.M., Halperin, E., Conde, L., Craig, D.W., Agana, L., Iyadurai, K., Becker, N., Brooks-Wilson, A., Curry, J.D., Spinelli, J.J., Holly, E.A., Riby, J., Zhang, L., Nieters, A., Smith, M.T. and Brown, K.M. 2009. Genetic variants at 6p21.33 are associated with susceptibility to follicular lymphoma. *Nat. Genet.* 41: 873-875.
5. Amos, C.I., Pinney, S.M., Li, Y., Kupert, E., Lee, J., de Andrade, M.A., Yang, P., Schwartz, A.G., Fain, P.R., Gazdar, A., Minna, J., Wiest, J.S., Zeng, D., You, M., Coons, T., Gaba, C., Bailey-Wilson, J.E. and Anderson, M.W. 2010. A susceptibility locus on chromosome 6q greatly increases lung cancer risk among light and never smokers. *Cancer Res.* 70: 2359-2367.
6. Jalil, S., Grady, J.J., Lee, C. and Anderson, K.E. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. *Clin. Gastroenterol. Hepatol.* 8: 297-302, 302.e1.

## CHROMOSOMAL LOCATION

Genetic locus: PRR3 (human) mapping to 6p21.33.

## SOURCE

CAT56 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CAT56 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-242315 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CAT56 (P-15) is recommended for detection of CAT56 of 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).

Suitable for use as control antibody for CAT56 siRNA (h): sc-95054, CAT56 shRNA Plasmid (h): sc-95054-SH and CAT56 shRNA (h) Lentiviral Particles: sc-95054-V.

Molecular Weight of CAT56: 21 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) 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](http://www.scbt.com) or our catalog for detailed protocols and support products.