SANTA CRUZ BIOTECHNOLOGY, INC.

Pumilio 2 (D-17): sc-31537

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pumilio 2 is a sequence-specific RNA-binding protein that regulates translation and mRNA stability by binding mRNA targets. It supports proliferation and self-renewal of stem cells by regulating the translation of key transcripts. The Pumilio gene encodes proteins that are required for development of germ stem cells in one or both sexes. The Pumilio protein interacts with the human Nanos1 protein, and this interaction may play a conserved role in germ cell development. Pumilio 2 is highly expressed in testis and ovary and at lower levels in brain, heart, kidney, liver, muscle, placenta, intestine and stomach. It is also expressed in stem cells, germ cells and in most fetal tissues.

REFERENCES

1. Spassov, D.S. and Jurecic, R. 2002. Cloning and comparative sequence analysis of PUM1 and PUM2 genes, human members of the Pumilio family of RNA-binding proteins. Gene 299: 195-204
2. Jaruzelska, J., Kotecki, M., Kusz, K., Spik, A., Firpo, M. and Reijo Pera, R.A. 2003. Conservation of a Pumilio-Nanos complex from *Drosophila* germ plasm to human germ cells. Dev. Genes Evol. 213: 120-126
3. Moore, F.L., Jaruzelska, J., Fox, M.S., Urano, J., Firpo, M.T., Turek, P.J., Dorfman, D.M. and Pera, R.A. 2003. Human Pumilio 2 is expressed in embryonic stem cells and germ cells and interacts with DAZ (deleted in azoospermia) and DAZ-like proteins. Proc. Natl. Acad. Sci. USA 100: 538-543
4. SWISS-PROT/TrEMBL (41688714). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html.

CHROMOSOMAL LOCATION

Genetic locus: PUM2 (human) mapping to 2p24.1; Pum2 (mouse) mapping to 12 A1.1.

SOURCE

Pumilio 2 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pumilio 2 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-31537 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Pumilio 2 (D-17) is recommended for detection of Pumilio 2 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).

Pumilio 2 (D-17) is also recommended for detection of Pumilio 2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Pumilio 2 siRNA (h): sc-44773, Pumilio 2 siRNA (m): sc-44774, Pumilio 2 shRNA Plasmid (h): sc-44773-SH, Pumilio 2 shRNA Plasmid (m): sc-44774-SH, Pumilio 2 shRNA (h) Lentiviral Particles: sc-44773-V and Pumilio 2 shRNA (m) Lentiviral Particles: sc-44774-V.

Molecular Weight of Pumilio 2: 114 kDa.

Positive Controls: ES-2 cell lysate: sc-24674.

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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.