

# Pumilio 1 (S-19): sc-65188

## BACKGROUND

Pumilio 1, also known as PUM1, PUMH1 (Pumilio homolog 1), HSPUM, PUMH or PUML1, is a homolog of the *Drosophila* Pumilio protein and belongs to the PUF family. The PUF family is comprised of evolutionarily conserved proteins that contain a C-terminal RNA binding domain made up of eight highly conserved tandem repeats. PUF proteins function as sequence-specific RNA-binding proteins and bind NREs (nanos response elements) in the 3'-untranslated regions of target mRNAs. They play an important role mediating mRNA stabilization and repressing translation. Pumilio 1 is a typical PUF protein expressed in fetal tissues as well as adult stomach, kidney, intestine, muscle, brain and heart tissues. Pumilio 1 localizes to the cytoplasm and is believed to participate in cell fate, cell development, cell differentiation and maintenance of somatic stem cells.

## REFERENCES

1. Wang, X., et al. 2001. Crystal structure of a Pumilio homology domain. *Mol. Cell* 7: 855-865.
2. Spassov, D.S., et al. 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.
3. Wang, X., et al. 2002. Modular recognition of RNA by a human Pumilio-homology domain. *Cell* 110: 501-512.
4. Spassov, D.S., et al. 2003. The PUF family of RNA-binding proteins: does evolutionarily conserved structure equal conserved function? *IUBMB Life* 55: 359-366.

## CHROMOSOMAL LOCATION

Genetic locus: PUM1 (human) mapping to 1p35.2; Pum1 (mouse) mapping to 4 D2.2.

## SOURCE

Pumilio 1 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pumilio 1 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-65188 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Pumilio 1 (S-19) is recommended for detection of Pumilio-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 1 (S-19) is also recommended for detection of Pumilio-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Pumilio 1 siRNA (h): sc-62912, Pumilio 1 siRNA (m): sc-62913, Pumilio 1 shRNA Plasmid (h): sc-62912-SH, Pumilio 1 shRNA Plasmid (m): sc-62913-SH, Pumilio 1 shRNA (h) Lentiviral Particles: sc-62912-V and Pumilio 1 shRNA (m) Lentiviral Particles: sc-62913-V.

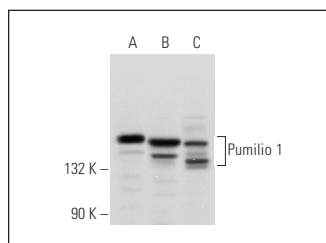
Molecular Weight of Pumilio 1: 127 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or U-251-MG whole cell lysates: sc-364176.

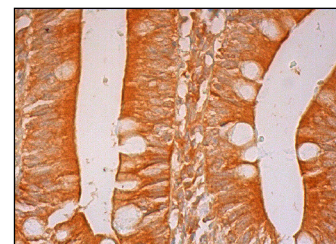
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Pumilio 1 (S-19): sc-65188. Western blot analysis of Pumilio 1 expression in Jurkat (A), HL-60 (B) and U-251-MG (C) whole cell lysates.



Pumilio 1 (S-19): sc-65188. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

## RESEARCH USE

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