

Pygopus 1 (H-162): sc-98662

BACKGROUND

Pygopus 1, also known as PYG01, is a 419 amino acid protein that localizes to the nucleus and contains one PHD-type zinc finger. Interacting with Bcl-9, Pygopus 1 is thought to be involved in signal transduction events related to the Wnt pathway. The gene encoding Pygopus 1 maps to human chromosome 15, which encodes over 700 genes and comprises nearly 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

REFERENCES

1. Kramps, T., et al. 2002. Wnt/wingless signaling requires Bcl-9/Legless-mediated recruitment of pygopus to the nuclear β -catenin-TCF complex. *Cell* 109: 47-60.
2. Thompson, B., et al. 2002. A new nuclear component of the Wnt signaling pathway. *Nat. Cell Biol.* 4: 367-373.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606902. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Townsley, F.M., et al. 2004. Pygopus residues required for its binding to Legless are critical for transcription and development. *J. Biol. Chem.* 279: 5177-5183.
5. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
6. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.

CHROMOSOMAL LOCATION

Genetic locus: PYG01 (human) mapping to 15q21.3; Pyg01 (mouse) mapping to 9 D.

SOURCE

Pygopus 1 (H-162) is a rabbit polyclonal antibody raised against amino acids 65-221 mapping within an internal region of Pygopus 1 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

Pygopus 1 (H-162) is recommended for detection of Pygopus 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Pygopus 1 (H-162) is also recommended for detection of Pygopus 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Pygopus 1 siRNA (h): sc-76301, Pygopus 1 siRNA (m): sc-76302, Pygopus 1 shRNA Plasmid (h): sc-76301-SH, Pygopus 1 shRNA Plasmid (m): sc-76302-SH, Pygopus 1 shRNA (h) Lentiviral Particles: sc-76301-V and Pygopus 1 shRNA (m) Lentiviral Particles: sc-76302-V.

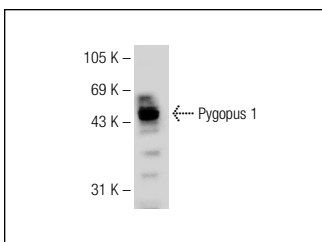
Molecular Weight of Pygopus 1: 45 kDa.

Positive Controls: JAR cell lysate: sc-2276.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Pygopus 1 (H-162): sc-98662. Western blot analysis of Pygopus 1 expression in JAR whole cell lysate.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **Pygopus 1 (3E1): sc-517079**, our highly recommended monoclonal alternative to Pygopus 1 (H-162).