SANTA CRUZ BIOTECHNOLOGY, INC.

Pygopus 1 (N-18): sc-83019

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pygopus 1, also known as PYGO1, 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.

CHROMOSOMAL LOCATION

Genetic locus: PYGO1 (human) mapping to 15q21.3; Pygo1 (mouse) mapping to 9 D.

SOURCE

Pygopus 1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pygopus 1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83019 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pygopus 1 (N-18) 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 µg per 100-500 µg 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); non cross-reactive with family member Pygopus 2.

Pygopus 1 (N-18) is also recommended for detection of Pygopus 1 in additional species, including equine, canine, bovine, porcine and avian.

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.

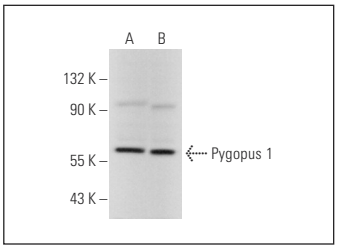
Molecular Weight of Pygopus 1: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HEK293 whole cell lysate: sc-45136.

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.

DATA



Pygopus 1 (N-18): sc-83019. Western blot analysis of Pygopus 1 expression in HeLa (**A**) and HEK293 (**B**) whole cell lysates.

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 or our catalog for detailed protocols and support products.