

# Prop-1 (D-16): sc-18467

## BACKGROUND

The gene encoding a novel type of pituitary-specific transcription factor, Prophet of Pit-1 (Prop1), is a causative agent in combined pituitary hormone deficiency. Prop1 is expressed in normal pituitary gland, but is absent from normal brain tissue, glioblastomas (cell lines and tumor tissues) and meningioma. Prop1 is also expressed in both the pituitary tumors and normal human adult pituitary tissues, suggesting that Prop1 is an essential transcription factor for pituitary specific gene expression in human. Therefore, detection of Prop1 might be an indicator for differentiating pituitary adenomas, regardless of their hormonal phenotypes, in respect to other brain tumors. Mutations in the Prop1 gene can also result in abnormal pituitary development in humans, leading to multiple hormone deficiencies. Furthermore, the DNA symmetry in the Prop-1 gene contributes to the frequency with which this gene is mutated. The finding that mutations in this gene in humans can result in both hypothalamic defects and defects in gonadotropin secretion suggests that this protein may have important functions during development.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PROP1 (human) mapping to 5q35.3; Prop1 (mouse) mapping to 11 B1.3.

## SOURCE

Prop-1 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Prop-1 of human origin.

## STORAGE

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

## 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-18467 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-18467 X, 200 µg/0.1 ml.

## APPLICATIONS

Prop-1 (D-16) is recommended for detection of Prop-1 of mouse, rat 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).

Prop-1 (D-16) is also recommended for detection of Prop-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Prop-1 siRNA (h): sc-38201, Prop-1 siRNA (m): sc-38202, Prop-1 shRNA Plasmid (h): sc-38201-SH, Prop-1 shRNA Plasmid (m): sc-38202-SH, Prop-1 shRNA (h) Lentiviral Particles: sc-38201-V and Prop-1 shRNA (m) Lentiviral Particles: sc-38202-V.

Prop-1 (D-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.