

# Parafibromin (H-16): sc-46225

## BACKGROUND

Parathyroid tumors are heterogeneous and diagnosis of the disease is often difficult. The Parafibromin protein may be important as a marker for diagnosing parathyroid carcinoma. Parafibromin is encoded by the endocrine tumor suppressor gene CDC73 (cell division cycle 73, Paf1/RNA polymerase II complex component), alternatively known as the HRPT2 (hyperparathyroidism-jaw tumor syndrome 2) gene. The human CDC73 gene, which maps to chromosome 1q25, is the human homolog of *Saccharomyces cerevisiae* Cdc73 and is responsible for the hyperparathyroidism with jaw tumor syndrome (HPT-JT). Parafibromin is part of the RNA polymerase II/Paf1 complex, which is crucial for histone modification. This Parafibromin complex binds to both the non-phosphorylated forms and the Ser 2 and Ser 5 phosphorylated forms of the RNA polymerase II large subunit.

## REFERENCES

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2. Cavaco, B.M., Guerra, L., Bradley, K.J., Carvalho, D., Harding, B., Oliveira, A., Santos, M.A., Sobrinho, L.G., Thakker, R.V. and Leite, V. 2004. Hyperparathyroidism-jaw tumor syndrome in Roma families from Portugal is due to a founder mutation of the HRPT2 gene. *J. Clin. Endocrinol. Metab.* 89: 1747-1752.
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## CHROMOSOMAL LOCATION

Genetic locus: CDC73 (human) mapping to 1q31.2; Cdc73 (mouse) mapping to 1 F.

## SOURCE

Parafibromin (H-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Parafibromin 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-46225 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Parafibromin (H-16) is recommended for detection of Parafibromin 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).

Parafibromin (H-16) is also recommended for detection of Parafibromin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Parafibromin siRNA (h): sc-45528, Parafibromin siRNA (m): sc-45529, Parafibromin shRNA Plasmid (h): sc-45528-SH, Parafibromin shRNA Plasmid (m): sc-45529-SH, Parafibromin shRNA (h) Lentiviral Particles: sc-45528-V and Parafibromin shRNA (m) Lentiviral Particles: sc-45529-V.

Molecular Weight of Parafibromin: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or C32 whole cell lysate: sc-2205.

## 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.



Try **Parafibromin (2H1): sc-33638** or **Parafibromin (A-8): sc-271877**, our highly recommended monoclonal alternatives to Parafibromin (H-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Parafibromin (2H1): sc-33638**.