

Parafibromin (G-9): sc-365749

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 nonphosphorylated forms and the Ser 2 and Ser 5 phosphorylated forms of the RNA polymerase II large subunit.

CHROMOSOMAL LOCATION

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

SOURCE

Parafibromin (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 97-131 within an internal region of Parafibromin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365749 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Parafibromin (G-9) is recommended for detection of Parafibromin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Parafibromin (G-9) is also recommended for detection of Parafibromin in additional species, including canine, bovine and porcine.

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.

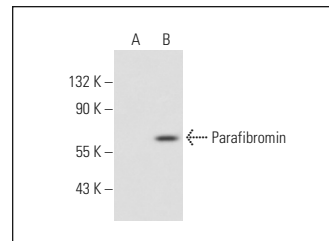
Molecular Weight of Parafibromin: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Parafibromin (m): 293T Lysate: sc-122375 or HeLa nuclear extract: sc-2120.

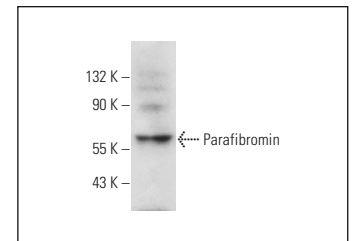
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Parafibromin (G-9): sc-365749. Western blot analysis of Parafibromin expression in non-transfected: sc-117752 (A) and mouse Parafibromin transfected: sc-122375 (B) 293T whole cell lysates.



Parafibromin (G-9): sc-365749. Western blot analysis of Parafibromin expression in HeLa nuclear extract.

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 for detailed protocols and support products.



See **Parafibromin (2H1): sc-33638** for Parafibromin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.