Parafibromin (2H1): sc-33638

**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, Pafl/RNA polymerase II complex component), alternatively known as the HRPT2 (hyperparathyroidism-jaw tumor syndrome 2) gene. The human CDC73 gene, which maps to chromosome 1q31.2, 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 Ser2 and Ser5 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 (2H1) is a mouse monoclonal antibody raised against a peptide corresponding to amino acids 87-100 of Parafibromin of mouse 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.

Parafibromin (2H1) is available conjugated to agarose (sc-33638 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-33638 HRP), 200 µg/ml, for WB, HCP and ELISA; to either phycoerythrin (sc-33638 PE), fluorescein (sc-33638 FITC), Alexa Fluor® 488 (sc-33638 AF488), Alexa Fluor® 546 (sc-33638 AF546), Alexa Fluor® 594 (sc-33638 AF594) or Alexa Fluor® 647 (sc-33638 AF647), 200 µg/ml, for WB (RGB), IF, HCP and FCM; and to either Alexa Fluor® 680 (sc-33638 AF680) or Alexa Fluor® 790 (sc-33638 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Parafibromin (2H1) 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of Parafibromin: 60 kDa.

Positive Controls: Parafibromin (m): 293T Lysate: sc-122375, C32 whole cell lysate: sc-22005 or HeLa whole cell lysate: sc-2200.

**STORAGE**

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

**DATA**


Parafibromin (2H1): sc-33638. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear staining of glandular cells (A) and cytoplasmic staining of glandular cells (B) in the nonphosphorylated forms and the Ser 2 and Ser 5 phosphorylated forms of the RNA polymerase II large subunit.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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