abcam

Product datasheet

Anti-HRPT2/Parafibromin antibody ab220097

1 Image

Overview

Product name	Anti-HRPT2/Parafibromin antibody
Description	Rabbit polyclonal to HRPT2/Parafibromin
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat, Chicken
Immunogen	Recombinant fragment corresponding to Human HRPT2/Parafibromin aa 100-300. Database link: **Q6P1J9** Run BLAST with Run BLAST with
Positive control	MCF7 cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab220097 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 0.25 - 2 µg/ml.

Target

Function Tumor suppressor probably involved in transcriptional and post-transcriptional control pathways. May be involved in cell cycle progression through the regulation of cyclin D1/PRAD1 expression. Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both indepentently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of MLL1; it promotes leukemogenesis though association with MLL-rearranged oncoproteins, such as MLL-MLLT3/AF9 and MLL-MLLT1/ENL. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. In case of infection by influenza A strain H3N2, PAF1C associates with viral NS1 protein, thereby regulating gene transcription. Connects PAF1C with the cleavage and polyadenylation specificity factor (CPSF) complex and the cleavage stimulation factor (CSTF) complex, and with Wnt signaling. Involved in polyadenylation of mRNA precursors.

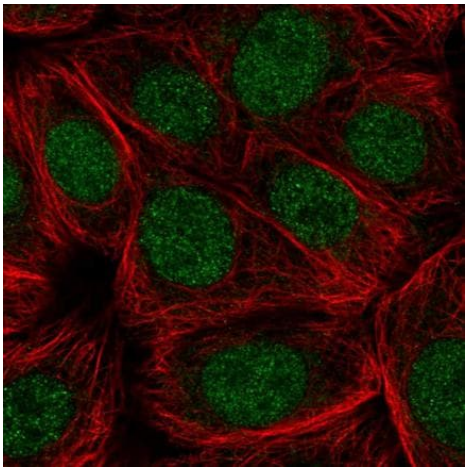
Tissue specificity Found in adrenal and parathyroid glands, kidney and heart.

Involvement in disease Defects in CDC73 are a cause of familial isolated hyperparathyroidism (FIHP) [MIM:145000]; also known as hyperparathyroidism type 1 (HRPT1). FIHP is an autosomal dominant disorder characterized by hypercalcemia, elevated parathyroid hormone (PTH) levels, and uniglandular or multiglandular parathyroid tumors.
Defects in CDC73 are the cause of hyperparathyroidism-jaw tumor syndrome (HPT-JT) [MIM:145001]; also known as hyperparathyroidism type 2 (HRPT2) or familial primary hyperparathyroidism with multiple ossifying jaw fibromas. HPT-JT is an autosomal dominant, multiple neoplasia syndrome primarily characterized by hyperparathyroidism due to parathyroid tumors. Thirty percent of individuals with HPT-JT may also develop ossifying fibromas, primarily of the mandible and maxilla, which are distinc from the brown tumors associated with severe hyperparathyroidism. Kidney lesions may also occur in HPT-JT as bilateral cysts, renal hamartomas or Wilms tumors.
Defects in CDC73 are a cause of parathyroid carcinoma (PRTC) [MIM:608266]. These cancers characteristically result in more profound clinical manifestations of hyperparathyroidism than do parathyroid adenomas, the most frequent cause of primary hyperparathyroidism. Early en bloc resection of the primary tumor is the only curative treatment.

Sequence similarities Belongs to the CDC73 family.

Cellular localization Nucleus.

Images



Immunocytochemistry/ Immunofluorescence - Anti-HRPT2/Parafibromin antibody (ab220097)

Immunofluorescent analysis of PFA-fixed, Triton X-100 permeabilized MCF7 cells labeling HRPT2/Parafibromin with ab220097 at 4 µg/ml (green).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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