10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PAX4 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6690C

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	O43316
Other Accession	P32115
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20216
Calculated MW	37833
Antigen Region	171-200

Additional Information

Other Names	Paired box protein Pax-4, PAX4
Target/Specificity	This PAX4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 171-200 amino acids from the Central region of human PAX4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PAX4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PAX4 {ECO:0000303|PubMed:9439631, ECO:0000312|HGNC:HGNC:8618}
Function	DNA-binding transcription factor that plays a central role in the differentiation and development of type B pancreatic cells, which are located within the pancreatic islets of Langerhans responsible for the production and release of insulin (By similarity). Mainly acts as a transcription repressor that

binds to a common element in the glucagon, insulin and somatostatin promoters and inhibits their expression (By similarity). Prevents differentiation of type A pancreatic cells, probably by repressing expression of ARX (By similarity). Competes with another transcription factor, PAX6, for this same promoter binding site (By similarity). Also plays a key role in intestinal enteroendocrine cell differentiation by (1) directly promoting differentiation of enterochromaffin cells and (2) preventing differentiation of other intestinal enteroendocrine cell types (PubMed:37883554). Prevents differentiation of other intestinal enteroendocrine cell types by repressing the expression of ARX, the master transcription factor for intestinal type-L, -N, -D, -I and -G enteroendocrine cell differentiation (PubMed:37883554).

Cellular Location Nucleus {ECO:0000250|UniProtKB:P32115}. Chromosome {ECO:0000250|UniProtKB:P32115}

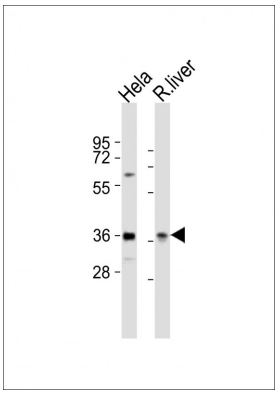
Background

PAX4 is a member of the paired box (PAX) family of transcription factors. These proteins play critical roles during fetal development and cancer growth. The paired box 4 gene is involved in pancreatic islet development and mouse studies have demonstrated a role for this gene in differentiation of insulin-producing beta cells.

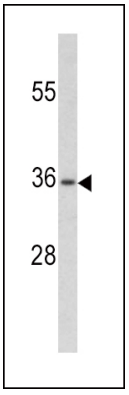
References

Hata,S., Int. J. Oncol. 33 (5), 1065-1071 (2008)
Zhang,Y., Diabetes Res. Clin. Pract. 81 (3), 365-369 (2008)

Images

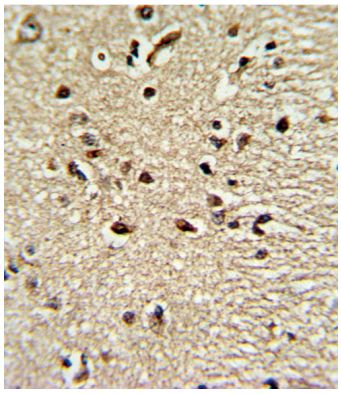


All lanes : Anti-PAX4 Antibody (Center) at 1:2000 dilution Lane 1: Hela whole cell lysates Lane 2: rat liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 38 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

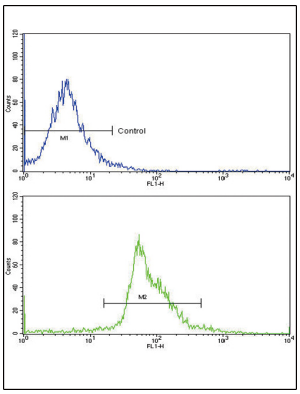


Western blot analysis of PAX4 antibody (Center) (RB20216) in CEM cell line lysates (35ug/lane). PAX4 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human brain tissue reacted with PAX4 Antibody (Center), which was



peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of widr cells using PAX4 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram)FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.