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PAX4 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1507a

Product Information

Application	WB, E
Primary Accession	O43316
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3C12
Isotype	IgG1
Calculated MW	37833
Description	This gene is a member of the paired box (PAX) family of transcription factors. Members of this gene family typically contain a paired box domain, an octapeptide, and a paired-type homeodomain. These genes 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.
Immunogen	Purified recombinant fragment of human PAX4 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Other Names	Paired box protein Pax-4, PAX4
Dilution	WB~~1/500 - 1/2000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PAX4 Antibody 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}

References

1. PLoS One. 2008 Mar 12;3(3):e1783. 2. Diabetes Res Clin Pract. 2008 Sep;81(3):365-9.

Images

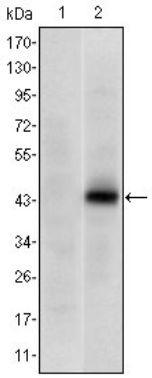


Figure 1: Western blot analysis using PAX4 mAb against HEK293 (1) and PAX4(AA: 105-232)-hIgGFc transfected HEK293 (2) cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.