

For Research Use Only

PDX1 Polyclonal antibody

Catalog Number: 20989-1-AP **16 Publications**



Basic Information

Catalog Number: 20989-1-AP	GenBank Accession Number: NM_000209	Purification Method: Antigen affinity purification
Size: 150ul, Concentration: 500 ug/ml by Nanodrop and 267 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 3651	Recommended Dilutions: WB 1:500-1:1000 IHC 1:50-1:500
Source: Rabbit	UNIPROT ID: P52945	
Isotype: IgG	Full Name: pancreatic and duodenal homeobox 1	
	Calculated MW: 31 kDa	
	Observed MW: 40-50 kDa	

Applications

Tested Applications: WB, IHC, ELISA	Positive Controls: WB : PC-3 cells, BxPC-3 cells IHC : human stomach cancer tissue,
Cited Applications: WB, IHC, IF	
Species Specificity: human, mouse	
Cited Species: human, mouse, rat	

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

Pancreatic duodenal homeobox-1 protein (PDX-1), also designated INS promoter factor (IPF1), INS upstream factor 1 (IUF1), somatostatin trans-activating factor-1 (STF-1) and glucose-sensitive factor (GSF), is a 282 amino acid homeodomain-containing transcription factor present in pancreatic beta-cells. PDX-1 is a key regulator of pancreatic islet development and INS gene transcription in beta-cells. PDX-1 is expressed in all cells at the early stages of development and is mainly restricted to the pancreas and duodenum in adult. HNF-3b, HNF-1a and SP1 positively regulate the PDX-1 enhancer element. PDX-1 is also regulated by glucagon-like peptide through activation of adenylyl cyclase, which results in an increase in intracellular cAMP activity. The increased levels of cAMP, and the resulting activation of PKA, lead to an increase in PDX-1 transcription and translocation of the protein to the nuclei of beta-cells. PDX-1 binds to the sequence C(C/T) and can heterodimerize with PBX. PDX-1 is phosphorylated by the SAPK2 pathway under high glucose concentrations. Mutations in the PDX-1 gene can cause maturity-onset diabetes of the young and pancreatic agenesis.

Notable Publications

Author	Pubmed ID	Journal	Application
Nan Zhang	30455626	Front Neurosci	IF
Yanrong Yu	35616388	Biofabrication	IF
Xinlei Yao	32690606	J Biol Chem	WB

Storage

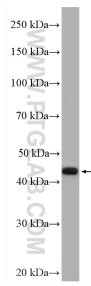
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

***** 20ul sizes contain 0.1% BSA**

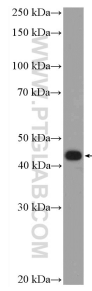
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Selected Validation Data



BxPC-3 cells were subjected to SDS PAGE followed by western blot with 20989-1-AP (PDX1 antibody) at dilution of 1:1200 incubated at room temperature for 1.5 hours.



PC-3 cells were subjected to SDS PAGE followed by western blot with 20989-1-AP (PDX1 Antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.

Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 20989-1-AP (PDX1 antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).