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PITX2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1429b

Product Information

Application	WB, IF, E
Primary Accession	Q99697
Other Accession	Q9I8K3, Q6QU75, Q9PWR3, Q9R0W1, P97474, Q9W5Z2, O93385
Reactivity	Human
Predicted	Chicken, Zebrafish, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB10568
Calculated MW	35370
Antigen Region	122-151

Additional Information

Gene ID	5308
Other Names	Pituitary homeobox 2, ALL1-responsive protein ARP1, Homeobox protein PITX2, Paired-like homeodomain transcription factor 2, RIEG bicoid-related homeobox transcription factor, Solurshin, PITX2, ARP1, RGS, RIEG, RIEG1
Target/Specificity	This PITX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 122-151 amino acids of human PITX2.
Dilution	WB~~1:1000 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	PITX2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PITX2 (HGNC:9005)
Function	May play a role in myoblast differentiation. When unphosphorylated, associates with an ELAVL1-containing complex, which stabilizes cyclin mRNA

and ensuring cell proliferation. Phosphorylation by AKT2 impairs this association, leading to CCND1 mRNA destabilization and progression towards differentiation.

Cellular Location Nucleus. Cytoplasm {ECO:0000250|UniProtKB:P97474}

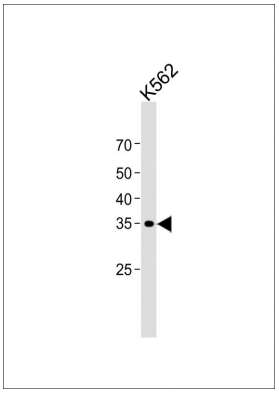
Background

Pilx2 is a member of the RIEG/PITX homeobox family, which is in the bicoid class of homeodomain proteins. This protein acts as a transcription factor and regulates procollagen lysyl hydroxylase gene expression. It plays a role in the terminal differentiation of somatotroph and lactotroph cell phenotypes, is involved in the development of the eye, tooth and abdominal organs, and acts as a transcriptional regulator involved in basal and hormone-regulated activity of prolactin. Mutations in this protein are associated with Axenfeld-Rieger syndrome, iridogoniodysgenesis syndrome, and sporadic cases of Peters anomaly. A similar protein in other vertebrates is involved in the determination of left-right asymmetry during development.

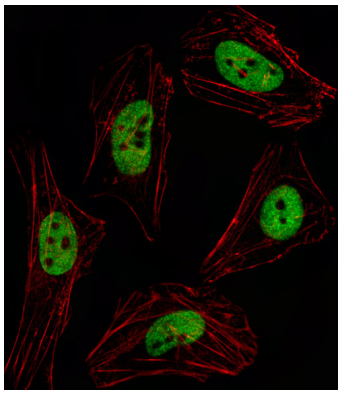
References

Engenheiro,E., Clin. Genet. 72 (5), 464-470 (2007)
Gudbjartsson,D.F., Nature 448 (7151), 353-357 (2007)
Lowry,R.B., Am. J. Med. Genet. A 143 (11), 1227-1230 (2007)

Images



All lanes: Anti-PITX2 Antibody (C-term) at 1:2000 dilution + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 35 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Fluorescent image of Hela cell stained with PITX2 Antibody (C-term)(Cat#AP1429b/SA070209B).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with PITX2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).PITX2 immunoreactivity is localized to Nucleus significantly.