

# IRX4 Rabbit pAb

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Catalog # AP94214

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF
<b>Primary Accession</b>	<a href="#">P78413</a>
<b>Reactivity</b>	Mouse, Rat
<b>Predicted</b>	Human, Chicken, Dog, Horse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	54445
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human IRX4
<b>Epitope Specificity</b>	131-230/519
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Nucleus.
<b>SIMILARITY</b>	Belongs to the TALE/IRO homeobox family. Contains 1 homeobox DNA-binding domain.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	The Iroquois homeobox gene family of transcription factors regulate aspects of embryonic development including anterior/posterior and dorsal/ventral axis patterning in the central nervous system. The Iroquois family are clustered on two loci, IRXA and IRXB, which map to chromosomes 8 and 13 in mice. The IRXA group includes Irx1, Irx2 and Irx4; the IRXB group is comprised of Irx3, Irx5 and Irx6. Irx1 and Irx2 are both widely expressed during development in the lung epithelium and also in the ventricular septum. Irx1 and Irx2 also play a role in digit formation (E11.5-E14.5). The Irx gene family members are each expressed in a distinct pattern during mouse heart development. Specifically, Irx1 and Irx2 are expressed in the ventricular septum and Irx3 is expressed in the ventricular trabeculated myocardium. In addition, Irx4 is expressed in the linear heart tube and the AV canal, and Irx5 is expressed in the endocardium lining the ventricular and atrial myocardium. Furthermore, the IRX4 gene may modulate cardiac development and function. Although the heart of Irx4(-) mice appears to develop normally, adult Irx4(-) mice exhibit cardiomyopathy, including cardiac hypertrophy and decreased contractility.

## Additional Information

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<b>Gene ID</b>	50805
<b>Other Names</b>	Iroquois-class homeodomain protein IRX-4, Homeodomain protein IRXA3,

Iroquois homeobox protein 4, IRX4, IRXA3

**Target/Specificity**

Predominantly expressed in cardiac ventricles.

**Dilution**

WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

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**Name**

IRX4

**Synonyms**

IRXA3

**Function**

Likely to be an important mediator of ventricular differentiation during cardiac development.

**Cellular Location**

Nucleus.

**Tissue Location**

Predominantly expressed in cardiac ventricles.

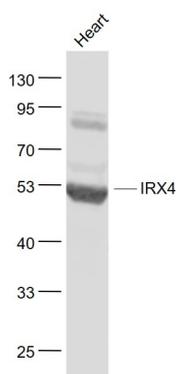
## Background

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The Iroquois homeobox gene family of transcription factors regulate aspects of embryonic development including anterior/posterior and dorsal/ventral axis patterning in the central nervous system. The Iroquois family are clustered on two loci, IRXA and IRXB, which map to chromosomes 8 and 13 in mice. The IRXA group includes Irx1, Irx2 and Irx4; the IRXB group is comprised of Irx3, Irx5 and Irx6. Irx1 and Irx2 are both widely expressed during development in the lung epithelium and also in the ventricular septum. Irx1 and Irx2 also play a role in digit formation (E11.5–E14.5). The Irx gene family members are each expressed in a distinct pattern during mouse heart development. Specifically, Irx1 and Irx2 are expressed in the ventricular septum and Irx3 is expressed in the ventricular trabeculated myocardium. In addition, Irx4 is expressed in the linear heart tube and the AV canal, and Irx5 is expressed in the endocardium lining the ventricular and atrial myocardium. Furthermore, the IRX4 gene may modulate cardiac development and function. Although the heart of Irx4(-) mice appears to develop normally, adult Irx4(-) mice exhibit cardiomyopathy, including cardiac hypertrophy and decreased contractility.

## Images

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**Sample:**

Heart (Mouse) Lysate at 40 ug

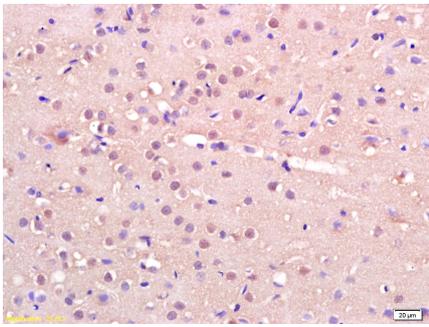
Primary: Anti- IRX4 (AP94214) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54 kD

Observed band size: 52 kD

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;



Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-IRX4 Polyclonal Antibody, Unconjugated(AP94214) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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