Data Sheet (Cat.No.TMAB-07821)

Anti-IRX4 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Mouse,Rat (predicted:Human,Chicken,Dog,Horse)
Molecular Weight:	Theoretical: 54 kDa. Actual: 52 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37℃ for 20 min; Incubation: Anti-IRX4 Polyclonal Antibody, Unconjugated (TMAB-07821) 1: 200, overnight at 4° C, followed by conjugation to the secondary antibody and DAB staining 2. Sample: Brain (Mouse) Lysate at 40 µg Heart (Mouse) Lysate at 40 µg Primary: Anti-IRX4 (TMAB-07821) at 1/300 dilution Secondary: HRP conjugated Goat-Anti-rabbit IgG at 1/5000 dilution Predicted band size: 54 kD Observed band size: 57 kD 3. Sample: Heart (Mouse) Lysate at 40 µg Primary: Anti-IRX4 (TMAB-07821) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kD Observed band size: 52 kD
Application:	WB,IHC-P,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human IRX4
Antigen Species:	Human
Gene ID:	50805
Uniprot ID:	P78413

Research Background

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.

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