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 comprises 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; Irx5 is expressed in the endocardium lining the ventricular and atrial myocardium. Furthermore, the IRX4 gene may regulate 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.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: IRX1 (human) mapping to 5p15.33; Irx1 (mouse) mapping to 13 C1.

SOURCE

IRX1 (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IRX1 of mouse origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No SDS required.