SANTA CRUZ BIOTECHNOLOGY, INC.

Islet-1/2 (H-120): sc-30200

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Islet-1 (ISL1 transcription factor, LIM/homeodomain) and Islet-2 (ISL2 transcription factor, LIM/homeodomain) contain amino-terminal LIM domains and a carboxy-terminal homeodomain and both influence developmental events. Islet-1 influences embryogenesis of the pancreatic islets of Langerhans and neural tube motor neuron differentiation. In developing mouse teeth, Islet-1 mediates patterning of dentition as an activator of Bmp4 expression in incisor (distal) areas of the stomatodeal epithelium. Islet-1 expression defines cardiac progenitor cell populations and is required for normal cardiac development and asymmetry. Islet-2 activity in newly generated motor neurons permits the diversification of visceral and somatic motor neuron subtypes in the developing spinal cord. Murine Islet-2 specifies retinal ganglion cell (RGC) laterality by repressing an ipsilateral pathfinding program unique to the ventral-temporal crescent (VTC) of RGCs in a Zic2- and EphB1-dependent manner.

CHROMOSOMAL LOCATION

Genetic locus: ISL1 (human) mapping to 5q11.1, ISL2 (human) mapping to 15q24.3; Isl1 (mouse) mapping to 13 D2.3, Isl2 (mouse) mapping to 9 B.

SOURCE

Islet-1/2 (H-120) is a rabbit polyclonal antibody raised against amino acids 230-349 mapping at the C-terminus of Islet-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-30200 X, 200 µg/0.1 ml.

STORAGE

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

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Islet-1/2 (H-120) is recommended for detection of Islet-1 and Islet-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Islet-1/2 (H-120) is also recommended for detection of Islet-1 and Islet-2 in additional species, including equine, canine, bovine, porcine and avian.

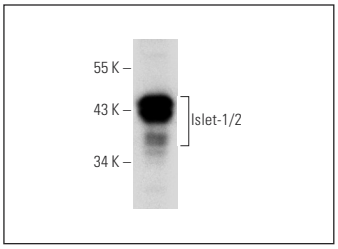
Islet-1/2 (H-120) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: Jurkat nuclear extract: sc-2132, SH-SY5Y nuclear extract: sc-364820 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Islet-1/2 (H-120): sc-30200. Western blot analysis of Islet-1/2 expression in SH-SY5Y nuclear extract.

SELECT PRODUCT CITATIONS

1. Nikolaev, A., et al. 2009. APP binds DR6 to trigger axon pruning and neuron death via distinct caspases. Nature 457: 981-989.
2. Davis, D.R., et al. 2010. Isolation and expansion of functionally-competent cardiac progenitor cells directly from heart biopsies. J. Mol. Cell. Cardiol. 49: 312-321.
3. Shahbazi, E., et al. 2011. Electrospun nanofibrillar surfaces promote neuronal differentiation and function from human embryonic stem cells. Tissue Eng. Part A 17: 3021-3031.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.