SANTA CRUZ BIOTECHNOLOGY, INC.

UNCX (O-23): sc-134143



BACKGROUND

Members of the paired homeobox family play a role in regulating cell development and pattern formation during embryonic stages. UNCX (UNC homeobox), also known as UNCX4.1, is a 531 amino acid nuclear transcription factor involved in neurogenesis and somitogenesis. Containing one homeobox DNAbinding domain, UNCX belongs to the paired homeobox family and UNC4 subfamily. UNCX assists in the formation of connections between hypothalamic neurons and the pituitary, which is necessary for central neurons to deliver hormones into peripheral blood. UNCX also plays a role in maintaining differentiation of the axial skeleton and acts upstream of Pax-9. The gene encoding UNCX maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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- 4. Mansouri, A., et al. 2000. Uncx4.1 is required for the formation of the pedicles and proximal ribs and acts upstream of Pax-9. Development 127: 2251-2258.
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- 6. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. Arch. Otolaryngol. Head Neck Surg. 127: 705-708.
- 7. Asbreuk, C.H., et al. 2006. Neurohypophysial dysmorphogenesis in mice lacking the homeobox gene Uncx4.1. J. Mol. Endocrinol. 36: 65-71.
- 8. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.
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CHROMOSOMAL LOCATION

Genetic locus: UNCX (human) mapping to 7p22.3.

SOURCE

UNCX (0-23) is an affinity purified rabbit polyclonal antibody raised against synthetic UNCX peptide of human origin.

PRODUCT

Each vial contains 50 μ g lgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

UNCX (0-23) is recommended for detection of UNCX of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight (predicted) of UNCX: 54 kDa.

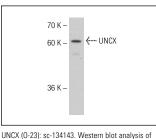
Molecular Weight (observed) of UNCX: 62 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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 antirabbit 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



UNCX expression in Jurkat whole cell lysate

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.