SANTA CRUZ BIOTECHNOLOGY, INC.

Six5 (K-20): sc-55706

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Six5 (homeobox protein SIX5), also known as SIX5, BOR2 or DMAHP (DM locus-associated homeodomain protein), is a transcription factor that is expressed in various structures of the adult eye. Localized to the cytoplasm in early development and to the nucleus in the later stages of development, Six5 is involved in regulation of organogenesis and in maintenance of retinal formation. Six5 is able to bind the 5'-TCA[AG][AG]TTNC-3' DNA sequence found in the myogenin and IGFBP5 promoters and, through this binding, can control transcription of the associated mRNA. Six5 is regulated via association with DACH1 (dachshund homolog 1) and is co-activated by the EYA (eyes absent) proteins. Defects in the gene encoding Six5 are the cause of branchio-oto-renal syndrome type 2 (BOR2), an autosomal disorder characterized by hearing loss, a deep overbite and myopia. Two isoforms exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SIX5 (human) mapping to 19q13.32.

SOURCE

Six5 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Six5 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55706 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-55706 X, 200 µg/0.1 ml.

APPLICATIONS

Six5 (K-20) is recommended for detection of Six5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Six5 (K-20) is also recommended for detection of Six5 in additional species, including bovine.

Suitable for use as control antibody for Six5 siRNA (h): sc-63034, Six5 shRNA Plasmid (h): sc-63034-SH and Six5 shRNA (h) Lentiviral Particles: sc-63034-V.

Six5 (K-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Six5: 75 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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