SANTA CRUZ BIOTECHNOLOGY, INC.

FOXE1 (V-20): sc-16392

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Forkhead box protein E1 (FOXE1) is a member of the forkhead/ winged-helix domain transcription factor family. FOXE1, also designated FKHL15 or TTF-2, complexes with TTF-1 and Pax-8 to induce thyroid follicular cell differentiation and thyroid hormone biosynthesis by regulating the expression of the sodium iodide symporter (NIS), thyroid peroxidase (TPO), thyroglobulin (TG) and the thyrotropin receptor (TSHR). FOXE1 encodes a protein that is expressed in several tissues, including thymus, adult brain, lung, liver, heart and pancreas. The chromosomal location of the FOXE1 gene on 9q22 suggests that it may be involved in squamous cell epithelioma and hereditary sensory neuropathy type I. Mutations in the FOXE1 gene lead to the development of congenital hypothyroidism, which occurs in approximately one in four thousand newborns and results in complete or partial failure of thyroid gland development. Patients who are homozygous for a missense mutation in the forkhead domain of the FOXE1 gene can also develop thyroid agenesis, cleft palate and choanal atresia. Subsequently, the FOXE1 gene may used as a marker to study these disorders.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FOXE1 (human) mapping to 9q22.33; Foxe1 (mouse) mapping to 4 B1.

SOURCE

FOXE1 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FOXE1 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.

Blocking peptide available for competition studies, sc-16392 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-16392 X, 200 µg/0.1 ml.

APPLICATIONS

FOXE1 (F-17) is recommended for detection of FOXE1 of mouse, rat and 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).

FOXE1 (F-17) is also recommended for detection of FOXE1 in additional species, including bovine and porcine.

Suitable for use as control antibody for FOXE1 siRNA (h): sc-44175, FOXE1 siRNA (m): sc-145224, FOXE1 shRNA Plasmid (h): sc-44175-SH, FOXE1 shRNA Plasmid (m): sc-145224-SH, FOXE1 shRNA (h) Lentiviral Particles: sc-44175-V and FOXE1 shRNA (m) Lentiviral Particles: sc-145224-V.

FOXE1 (F-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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.

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.

PROTOCOLS

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