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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

FOXE1 (D-6): sc-518211

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

1. Chadwick, B.P., et al. 1997. FKHL15, a new human member of the forkhead gene family located on chromosome 9q22. Genomics 41: 390-396.
2. Clifton-Bligh, R.J., et al. 1998. Mutation of the gene encoding human TTF-2 associated with thyroid agenesis, cleft palate and choanal atresia. Nat. Genet. 19: 399-401.
3. Suzuki, K., et al. 1999. Thyroglobulin regulates follicular function and heterogeneity by suppressing thyroid-specific gene expression. Biochimie 81: 329-340.
4. Miyazaki, A., et al. 1999. Tumor necrosis factor-α and interferon-γ suppress both gene expression and deoxyribonucleic acid-binding of TTF-2 in FRTL-5 cells. Endocrinology 140: 4214-4220.

CHROMOSOMAL LOCATION

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

SOURCE

FOXE1 (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 141-164 of FOXE1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FOXE1 (D-6) is available conjugated to agarose (sc-518211 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518211 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518211 PE), fluorescein (sc-518211 FITC), Alexa Fluor® 488 (sc-518211 AF488), Alexa Fluor® 546 (sc-518211 AF546), Alexa Fluor® 594 (sc-518211 AF594) or Alexa Fluor® 647 (sc-518211 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518211 AF680) or Alexa Fluor® 790 (sc-518211 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

FOXE1 (D-6) is recommended for detection of FOXE1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

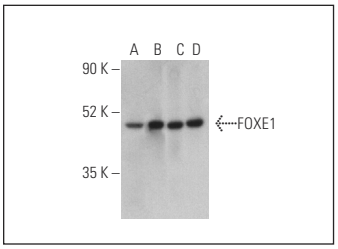
Suitable for use as control antibody for FOXE1 siRNA (h): sc-44175, FOXE1 siRNA (m): sc-145224, FOXE1 shRNA Plasmid (h): sc-44175-SH, FOXE1 shRNA Plasmid (m): sc-145224-SH, FOXE1 shRNA (h) Lentiviral Particles: sc-44175-V and FOXE1 shRNA (m) Lentiviral Particles: sc-145224-V.

Positive Controls: human skeletal muscle extract: sc-363776, mouse skeletal muscle extract: sc-364250 rat skeletal muscle extract: sc-364810.

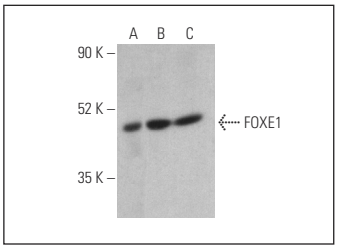
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FOXE1 (D-6): sc-518211. Western blot analysis of FOXE1 expression in HeLa whole cell lysate (**A**) and human skeletal muscle (**B**), mouse skeletal muscle (**C**) and rat skeletal muscle (**D**) tissue extracts. Detection reagent used: m-IgG_3 BP-HRP: sc-533670.



FOXE1 (D-6): sc-518211. Western blot analysis of FOXE1 expression in human skeletal muscle (**A**), mouse skeletal muscle (**B**) and rat skeletal muscle (**C**) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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 for detailed protocols and support products.