SANTA CRUZ BIOTECHNOLOGY, INC.

ZEB1 (E-20): sc-10572

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ZEB1 (also designated Zfhep, for zinc finger homeodomain enhancer-binding protein, δEF1, AREB6, BZP and NIL-2A) is a non-receptor transcription factor analogous to the *Drosophila* ZFH-1 protein. ZEB1 contains two separate zinc-finger domains (ZD1 and ZD2), which are essential for DNA binding and repression, and a homeodomain (HD), which is not. ZEB1 also contains three repression domains, two of which flank ZD1, and a third located between HD and ZD2. ZEB1 represses transcription by site competition and enhancer silencing mechanisms, as well as by interacting with corepressors through its repression domains. Interaction of ZEB1 with the TSHβ gene T3-response element may play a role in the modification of gene-specific regulation by thyroid hormones. In the embryo, ZEB1 is primarily expressed in the mesoderm, but changes in the level of expression during tissue maturation suggest a role for ZEB1 in the early histogenesis of mesodermal tissues. In addition to its role as an embryonic gene regulator, ZEB1 is also involved in regulating the development of certain skeletal structures.

CHROMOSOMAL LOCATION

Genetic locus: ZEB1 (human) mapping to 10p11.22; Zeb1 (mouse) mapping to 18 A1.

SOURCE

ZEB1 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZEB1 of rat 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-10572 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-10572 X, 200 µg/0.1 ml.

APPLICATIONS

ZEB1 (E-20) is recommended for detection of ZEB1 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)

ZEB1 (E-20) is also recommended for detection of ZEB1 in additional species, including canine and bovine.

Suitable for use as control antibody for ZEB1 siRNA (h): sc-38643, ZEB1 siRNA (m): sc-38644, ZEB1 shRNA Plasmid (h): sc-38643-SH, ZEB1 shRNA Plasmid (m): sc-38644-SH, ZEB1 shRNA (h) Lentiviral Particles: sc-38643-V and ZEB1 shRNA (m) Lentiviral Particles: sc-38644-V.

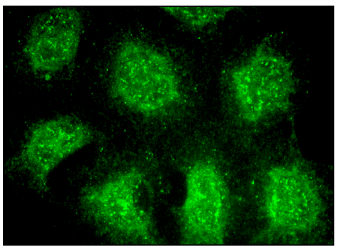
ZEB1 (E-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular weight of ZEB1: 124 kDa.

STORAGE

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

DATA



ZEB1 (E-20): sc-10572. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Hoek, K., et al. 2004. Expression profiling reveals novel pathways in the transformation of melanocytes to melanomas. Cancer Res. 15: 5270-5282.
2. Hu, F., et al. 2010. δEF1 promotes breast cancer cell proliferation through down-regulating p21 expression. Biochim. Biophys. Acta 1802: 301-312.
3. Sańchez-Tillo, et al. 2011. Expanding roles of ZEB factors in tumorigenesis and tumor progression. Am. J. Cancer Res. 1: 897-912.
4. Lacher, M.D., et al. 2011. ZEB1 limits adenoviral infectability by transcriptionally repressing the coxsackie virus and adenovirus receptor. Mol. Cancer 10: 91.
5. Argast, G.M., et al. 2011. Inducible expression of TGFβ, snail and Zeb1 recapitulates EMT *in vitro* and *in vivo* in a NSCLC model. Clin. Exp. Metastasis 28: 593-614.
6. Yang, Y., et al. 2011. The Notch ligand Jagged2 promotes lung adenocarcinoma metastasis through a miR-200-dependent pathway in mice. J. Clin. Invest. 121: 1373-1385.
7. Pereira F., et al. 2011. KDM6B/JMJD3 histone demethylase is induced by vitamin D and modulates its effects in colon cancer cells. Hum. Mol. Genet. 20: 4655-4665.
8. Pereira, F., et al. 2012. Vitamin D has wide regulatory effects on histone demethylase genes. Cell Cycle 11: 1081-1089.

RESEARCH USE

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