SANTA CRUZ BIOTECHNOLOGY, INC.

ZEB2 (E-11): sc-271984

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SMAD regulates gene expression by interacting with different classes of transcription factors including DNA-binding multi-zinc finger proteins. ZEB2 (zinc finger E-box-binding protein 2) is a member of the δ-EF1/Zfh1 family of 2-handed zinc finger/homeodomain proteins. ZEB2 contains a SMAD-binding domain, a homeodomain and two clusters of zinc fingers on the N- and C-termini. ZEB2, also known as SMADIP1, ZFHX1B and SIP1 (SMAD interacting protein 1), may be induced by TGFβ treatment. ZEB2 plays a crucial role in normal embryonic development of neural structures and neural crest. The human ZEB2 gene maps to chromosome 2q22.3. Mutations in the ZEB2 gene cause a form of Hirschsprung disease (HSCR). Patients with ZEB2 mutations show mental retardation, delayed motor development, epilepsy, microcephaly, distinct facial features and/or congenital heart disease, all symptoms of HSCR.

CHROMOSOMAL LOCATION

Genetic locus: ZEB2 (human) mapping to 2q22.3; Zeb2 (mouse) mapping to 2 B.

SOURCE

ZEB2 (E-11) is a mouse monoclonal antibody raised against amino acids 401-660 mapping within an internal region of ZEB2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZEB2 (E-11) is available conjugated to agarose (sc-271984 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271984 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271984 PE), fluorescein (sc-271984 FITC), Alexa Fluor® 488 (sc-271984 AF488), Alexa Fluor® 546 (sc-271984 AF546), Alexa Fluor® 594 (sc-271984 AF594) or Alexa Fluor® 647 (sc-271984 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271984 AF680) or Alexa Fluor® 790 (sc-271984 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ZEB2 (E-11) is recommended for detection of ZEB2 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 ZEB2 siRNA (h): sc-38641, ZEB2 siRNA (m): sc-38642, ZEB2 shRNA Plasmid (h): sc-38641-SH, ZEB2 shRNA Plasmid (m): sc-38642-SH, ZEB2 shRNA (h) Lentiviral Particles: sc-38641-V and ZEB2 shRNA (m) Lentiviral Particles: sc-38642-V.

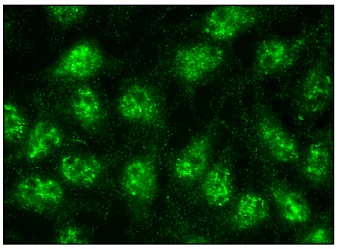
Molecular Weight of ZEB2: 157 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

STORAGE

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

DATA



ZEB2 (E-11): sc-271984. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

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2. Perrot, C., et al. 2013. GLI2 cooperates with ZEB1 for transcriptional repression of CDH1 expression in human melanoma cells. Pigment Cell Melanoma Res. 26: 861-873.
3. Wright, P.W., et al. 2014. Characterization of a weakly expressed KIR2DL1 variant reveals a novel upstream promoter that controls KIR expression. Genes Immun. 15: 440-448.
4. Zhao, L., et al. 2015. Bufalin inhibits TGF-β-induced epithelial-to-mesenchymal transition and migration in human lung cancer A549 cells by downregulating TGF-β receptors. Int. J. Mol. Med. 36: 645-652.
5. Lan, T., et al. 2016. Downregulation of ZEB2-AS1 decreased tumor growth and metastasis in hepatocellular carcinoma. Mol. Med. Rep. 14: 4606-4612.
6. Li, M.Z., et al. 2017. ZEB2 promotes tumor metastasis and correlates with poor prognosis of human colorectal cancer. Am. J. Transl. Res. 9: 2838-2851.
7. Müller, S., et al. 2018. Metformin reveals a mitochondrial copper addiction of mesenchymal cancer cells. PLoS ONE 13: e0206764.
8. Kowolik, C.M., et al. 2019. Attenuation of hedgehog/GLI signaling by NT1721 extends survival in pancreatic cancer. J. Exp. Clin. Cancer Res. 38: 431.
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10. Yu, Q., et al. 2021. Recepteur d'origine nantais contributes to the development of endometriosis via promoting epithelial-mesenchymal transition of a endometrial epithelial cells. J. Cell. Mol. Med. 25: 1601-1612.

RESEARCH USE

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