SANTA CRUZ BIOTECHNOLOGY, INC.

OAZ (E-6): sc-393904

BACKGROUND

OAZ (Olf-1/EBF associated zinc finger), also known as Roaz, is a 30-zinc finger, DNA-binding factor that associates with members of the Smad family of transcription factors in response to BMP2 activation. Bone morphogenic proteins (BMPs), are the largest group within the TGFβ growth factors superfamily and are involved in embryonic development, specifically the formation of left-right asymmetry, neurogenesis, organogenesis and skeletal development. BMPs bind to surface receptors, which then phosphorylate serine residues of specific Smad proteins to induce Smad translocation to the nucleus and transcriptional activation of BMP targeted genes. OAZ specifically cooperates with the BMP-activated Smads, namely Smad1, 5 and 8, in binding to the CAGAC and TGGAGC boxes within the BRE, or BMP response element, and activating transcription. OAZ contains a BMP signaling module formed by two clusters of fingers that individually associate with either the Smads or the BMP response element. Distinct regions of OAZ, separate from the modules involved in BMP regulation, also enable OAZ to function as a transcriptional partner of Olf-1/EBF in olfactory epithelium and lymphocyte development, indicating that, as a multi-zinc finger protein, OAZ may have dual roles in signal transduction during development.

CHROMOSOMAL LOCATION

Genetic locus: ZNF423 (human) mapping to 16q12.1; Zfp423 (mouse) mapping to 8 C3.

SOURCE

OAZ (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 35-58 near the N-terminus of OAZ 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393904 X, 200 µg/0.1 ml.

OAZ (E-6) is available conjugated to agarose (sc-393904 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393904 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393904 PE), fluorescein (sc-393904 FITC), Alexa Fluor® 488 (sc-393904 AF488), Alexa Fluor® 546 (sc-393904 AF546), Alexa Fluor® 594 (sc-393904 AF594) or Alexa Fluor® 647 (sc-393904 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393904 AF680) or Alexa Fluor® 790 (sc-393904 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393904 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

OAZ (E-6) is recommended for detection of OAZ 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).

OAZ (E-6) is also recommended for detection of OAZ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for OAZ siRNA (h): sc-38144, OAZ siRNA (m): sc-38145, OAZ shRNA Plasmid (h): sc-38144-SH, OAZ shRNA Plasmid (m): sc-38145-SH, OAZ shRNA (h) Lentiviral Particles: sc-38144-V and OAZ shRNA (m) Lentiviral Particles: sc-38145-V.

OAZ (E-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

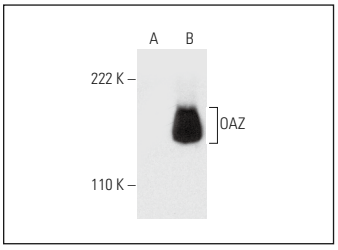
Molecular Weight of OAZ: 145 kDa.

Positive Controls: OAZ (h): 293T Lysate: sc-373007.

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



OAZ (E-6): sc-393904. Western blot analysis of OAZ expression in non-transfected: sc-117752 (**A**) and human OAZ transfected: sc-373007 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ma, P., et al. 2023. Promotion effect of TGF-β-Zfp423-ApoD pathway on lip sensory recovery after nerve sacrifice caused by nerve collateral compensation. Int. J. Oral Sci. 15: 23.

RESEARCH USE

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