

# OAZ (H-105): sc-48785

## 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 TGF $\beta$  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 (H-105) is a rabbit polyclonal antibody raised against amino acids 1-105 mapping at the N-terminus of OAZ of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG 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-48785 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

OAZ (H-105) is recommended for detection of OAZ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 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 (H-105) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

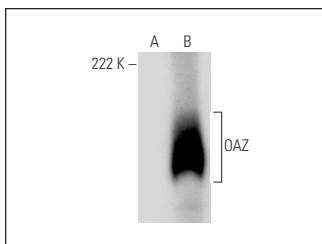
Molecular Weight of OAZ: 145 kDa.

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

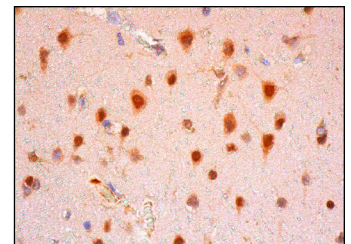
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



OAZ (H-105): sc-48785. Western blot analysis of OAZ expression in non-transfected: sc-117752 (A) and human OAZ transfected: sc-373007 (B) 293T whole cell lysates.



OAZ (H-105): sc-48785. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing nuclear staining of neuronal cells and glial cells.

## SELECT PRODUCT CITATIONS

1. Masserdotti, G., et al. 2010. ZFP423 coordinates Notch and bone morphogenetic protein signaling, selectively up-regulating Hes5 gene expression. J. Biol. Chem. 285: 30814-30824.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **OAZ (B-7): sc-514748** or **OAZ (E-6): sc-393904**, our highly recommended monoclonal alternatives to OAZ (H-105).