

Brn-3 (C-13): sc-6026

BACKGROUND

The Brn family of transcription factors are found in a highly restricted subset of neurons and are critical to the early embryonic development of the central nervous system. Brn-1 and Brn-2 are class III POU (Pit-Oct-Unc) domain proteins, whereas Brn-3 is a class IV POU domain protein. Three Brn-3 proteins have been described and are designated Brn-3a, Brn-3b and Brn-3c. While Brn-3a and Brn-3c stimulate transcription, Brn-3b generally functions as a transcriptional repressor. However, Brn-3b, but not Brn-3a, has been shown to regulate the expression of the acetylcholine receptor. Interestingly, Brn-3a has two functional transactivating domains, one at the amino-terminus and one at the carboxy-terminus. Brn-2 is thought to be involved in smooth muscle cell development and differentiation.

REFERENCES

1. Collum, R.G., et al. 1992. A novel POU homeodomain gene specifically expressed in cells of the developing mammalian nervous system. *Nucleic Acids Res.* 20: 4919-4925.
2. Xiang, M., et al. 1993. The gene for Brn-3b: a POU-domain protein expressed in retinal ganglion cells is assigned to the q31.2 region of chromosome 4. (Abstract) Human Genome Mapping Workshop 93: 7.

SOURCE

Brn-3 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Brn-3b of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6026 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-6026 X, 200 µg/0.1 ml.

APPLICATIONS

Brn-3 (C-13) is recommended for detection of Brn-3a, Brn-3b and Brn-3c 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), 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).

Brn-3 (C-13) is also recommended for detection of Brn-3a, Brn-3b and Brn-3c in additional species, including equine, canine, bovine and porcine.

Brn-3 (C-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Brn-3a: 53 kDa.

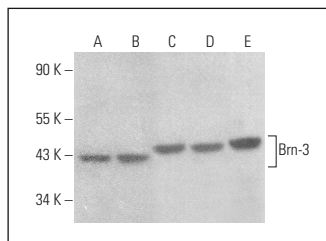
Molecular Weight of Brn-3b: 51 kDa.

Molecular Weight of Brn-3c: 42 kDa.

STORAGE

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

DATA



Brn-3 (C-13): sc-6026. Western blot analysis of Brn-3 expression in HEK293 (A), Hep G2 (B), HeLa (C), MCF7 (D) and SK-N-MC (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wagner, K.D., et al. 2002. The Wilms' tumor gene Wt1 is required for normal development of the retina. *EMBO J.* 21: 1398-1405.
2. Lee, J.K., et al. 2011. Regulator of G-protein signaling-10 negatively regulates NFκB in microglia and neuroprotects dopaminergic neurons in hemiparkinsonian rats. *J. Neurosci.* 31: 11879-11888.
3. de Melo, J., et al. 2011. The Spalt family transcription factor Sal3 regulates the development of cone photoreceptors and retinal horizontal interneurons. *Development* 138: 2325-2336.
4. Zabouri, N., et al. 2011. Cannabinoid receptor type 1 expression during postnatal development of the rat retina. *J. Comp. Neurol.* 519: 1258-1280.
5. Le Carré, J., et al. 2011. Altered expression of β-galactosidase-1-like protein 3 (Glb1l3) in the retinal pigment epithelium (RPE)-specific 65-kDa protein knock-out mouse model of Leber's congenital amaurosis. *Mol. Vis.* 17: 1287-1297.
6. Wilson, M., et al. 2011. Regional distribution of nitroergic neurons in the inner retina of the chicken. *Vis. Neurosci.* 28: 205-220.
7. Bosco, A., et al. 2011. Early microglia activation in a mouse model of chronic glaucoma. *J. Comp. Neurol.* 519: 599-620.
8. Cherry, T.J., et al. 2011. NeuroD factors regulate cell fate and neurite stratification in the developing retina. *J. Neurosci.* 31: 7365-7379.

RESEARCH USE

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

MONOS
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Try **Brn-3a (14A6): sc-8429** or **Brn-3 (A-4): sc-390780**, our highly recommended monoclonal alternatives to Brn-3 (C-13). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Brn-3a (14A6): sc-8429**.