

Brn-5 (E-30): sc-81982

BACKGROUND

The Brn family of transcription factors are found in a highly restricted subset of neurons and are critical in the early embryonic development of the central nervous system. Brn-1 and Brn-2 are class III POU (Pit-Oct-Unc) domain proteins, Brn-3 is a class IV POU domain protein and Brn-5 is a class VI POU domain protein. Brn-5 (brain-5), also known as POU6F1, MPOU or TCFB1, is a widely expressed protein, but during embryogenesis is exclusively found in the developing brain and spinal cord. As is characteristic of Brn family members, Brn-5 contains two DNA-binding domains, namely the POU-specific domain and the POU homeodomain, which each contain an HTH (helix-turn-helix) motif. Brn-5 binds to CRH (corticotrophin-releasing hormone) elements with high affinity and is capable of both enhancing Prolactin gene expression and activating Pit-1 expression.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: POU6F1 (human) mapping to 12q13.13; Pou6f1 (mouse) mapping to 15 F1.

SOURCE

Brn-5 (E-30) is a mouse monoclonal antibody raised against recombinant Brn-5 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Brn-5 (E-30) is recommended for detection of Brn-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Brn-5 siRNA (h): sc-72664, Brn-5 siRNA (m): sc-72665, Brn-5 shRNA Plasmid (h): sc-72664-SH, Brn-5 shRNA Plasmid (m): sc-72665-SH, Brn-5 shRNA (h) Lentiviral Particles: sc-72664-V and Brn-5 shRNA (m) Lentiviral Particles: sc-72665-V.

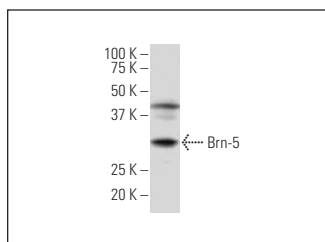
Molecular Weight of Brn-5: 33 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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).

DATA



Brn-5 (E-30): sc-81982. Western blot analysis of Brn-5 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

- Li, W.Y., et al. 2022. Transgenic Schwann cells overexpressing POU6F1 promote sciatic nerve regeneration within acellular nerve allografts. *J. Neural Eng.* E-published.

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.