

EN-2 (H-95): sc-66877

BACKGROUND

The engrailed-2 gene, EN2, a murine homolog of the *Drosophila* homeobox gene engrailed (EN), is required for midbrain and cerebellum development and dorsal/ventral patterning of the limbs as well as apical ectodermal ridge formation. In *Drosophila*, the EN gene plays an important role during development in segmentation, where it is required for the formation of posterior compartments. Human EN-1 and EN-2 are homeodomain-containing proteins and have been implicated in the control of pattern formation during development of the central nervous system. Different mutations in the mouse homologs, EN-1 and EN-2, produce different developmental defects that frequently are lethal. EN-1 is highly expressed by essentially all dopaminergic neurons in the substantia nigra and ventral tegmentum. EN-1 and EN-2 regulate expression of α -synuclein, a gene that is genetically linked to Parkinson's disease. During early brain development mouse EN-2 is expressed in a broad band across most of the mid-hindbrain region. EN-2 is also expressed in mouse myoblasts and has been associated with cerebellar hypoplasia.

CHROMOSOMAL LOCATION

Genetic locus: EN2 (human) mapping to 7q36.3; En2 (mouse) mapping to 5 B1.

SOURCE

EN-2 (H-95) is a rabbit polyclonal antibody raised against amino acids 116-210 mapping within an internal region of EN-2 of human origin.

PRODUCT

Each vial contains 200 μ 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-66877 X, 200 μ g/0.1 ml.

RESEARCH USE

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

APPLICATIONS

EN-2 (H-95) is recommended for detection of EN-2 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 EN-2 siRNA (h): sc-45658, EN-2 siRNA (m): sc-72138, EN-2 shRNA Plasmid (h): sc-45658-SH, EN-2 shRNA Plasmid (m): sc-72138-SH, EN-2 shRNA (h) Lentiviral Particles: sc-45658-V and EN-2 shRNA (m) Lentiviral Particles: sc-72138-V.

EN-2 (H-95) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

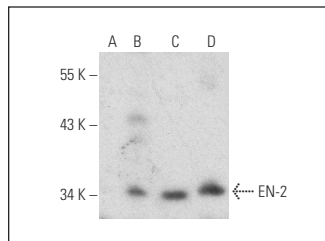
Molecular Weight of EN-2: 34 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, HL-60 whole cell lysate: sc-2209 or MCF7 whole cell lysate: sc-2206.

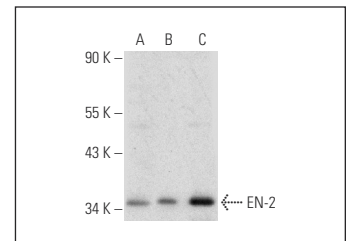
RECOMMENDED SECONDARY REAGENTS

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.

DATA



EN-2 (H-95): sc-66877. Western blot analysis of EN-2 expression in non-transfected 293: sc-110760 (A), mouse EN-2 transfected 293: sc-178577 (B), NCI-H460 (C) and HL-60 (D) whole cell lysates.



EN-2 (H-95): sc-66877. Western blot analysis of EN-2 expression in Daoy (A), MCF7 (B) and IMR-32 (C) whole cell lysates.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **EN-2 (1E1): sc-293311**, our highly recommended monoclonal alternative to EN-2 (H-95).