

EN-1 (D-20): sc-46101

BACKGROUND

The Engrailed-1 gene, EN-1, 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.

CHROMOSOMAL LOCATION

Genetic locus: EN1 (human) mapping to 2q14.2; En1 (mouse) mapping to 1 E2.3.

SOURCE

EN-1 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EN-1 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-46101 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-46101 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EN-1 (D-20) is recommended for detection of EN-1 of mouse and human 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).

EN-1 (D-20) is also recommended for detection of EN-1 in additional species, including porcine.

Suitable for use as control antibody for EN-1 siRNA (h): sc-43752, EN-1 siRNA (m): sc-45653, EN-1 shRNA Plasmid (h): sc-43752-SH, EN-1 shRNA Plasmid (m): sc-45653-SH, EN-1 shRNA (h) Lentiviral Particles: sc-43752-V and EN-1 shRNA (m) Lentiviral Particles: sc-45653-V.

EN-1 (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

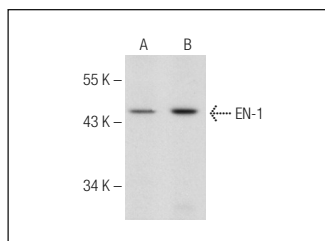
Molecular Weight of EN-1: 40 kDa.

Positive Controls: PC-3 nuclear extract: sc-2152, P19 cell lysate: sc-24760 or EOC 20 whole cell lysate: sc-364187.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



EN-1 (D-20): sc-46101. Western blot analysis of EN-1 expression in EOC 20 (A) and P19 (B) 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.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **EN-1 (E-12): sc-398534** or **EN-1 (3-RY3): sc-134328**, our highly recommended monoclonal alternatives to EN-1 (D-20).