SANTA CRUZ BIOTECHNOLOGY, INC.

ECEL1 (P-15): sc-11339

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ECEL1 (endothelin-converting enzyme-like 1, also designated XCE and DINE, damage-induced neuronal endopeptidase) is a member of the family of cell-surface zinc metallopeptidases. This family of metalloproteases includes endothelin-converting enzyme (ECE) and neutral endopeptidase (NEP). These peptidases are involved in the post-secretory processing and metabolism of neuropeptides and peptide hormones. Following neuronal damage, proteolytic activity of ECEL1 activates antioxidant enzymes suggesting a mechanism for how injured neurons protect themselves against death. Glycosylated ECEL1 is predominantly expressed in the central nervous system, including the spinal cord and medulla.

REFERENCES

1. Shipp, M.A. and Look, A.T. 1993. Hematopoietic differentiation antigens that are membrane-associated enzymes: cutting is the key! Blood 82: 1052-1070.
2. Turner, A.J. and Tanzawa, K. 1997. Mammalian membrane metallopeptidases: NEP, ECE, KelI, and Pex. FASEB J. 11: 355-364.
3. Gomazkov, O.A. 1998. Endothelin-converting enzyme: its functional aspect. Biochemistry 63: 125-132.
4. Schweizer, A., et al. 1999. Neonatal lethality in mice deficient in XCE, a novel member of the endothelin-converting enzyme and neutral endopeptidase family. J. Biol. Chem. 274: 20450-20456.
5. Valdenaire, O., et al. 1999. XCE, a new member of the endothelin-converting enzyme and neutral endopeptidase family, is preferentially expressed in the CNS. Brain Res. Mol. Brain Res. 64: 211-221.
6. Valdenaire, O., et al. 2000. Organization and chromosomal localization of the human ECEL1 (XCE) gene encoding a zinc metallopeptidase involved in the nervous control of respiration. Biochem. J. 346: 611-616.
7. Kiryu-Seo, S., et al. 2000. Damage-induced neuronal endopeptidase (DINE) is a unique metallo-peptidase expressed in response to neuronal damage and activates superoxide scavengers. Proc. Natl. Acad. Sci. USA 97: 4345-4350.

CHROMOSOMAL LOCATION

Genetic locus: ECEL1 (human) mapping to 2q37.1.

SOURCE

ECEL1 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of ECEL1 of human origin.

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.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11339 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ECEL1 (P-15) is recommended for detection of ECEL1 (also designated XCE or DINE) of 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)], 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).

ECEL1 (P-15) is also recommended for detection of ECEL1 (also designated XCE or DINE) in additional species, including porcine.

Suitable for use as control antibody for ECEL1 siRNA (h): sc-106909, ECEL1 shRNA Plasmid (h): sc-106909-SH and ECEL1 shRNA (h) Lentiviral Particles: sc-106909-V.

Molecular Weight of ECEL1 cell surface: 105 kDa.

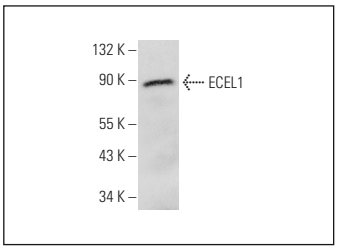
Molecular Weight of ECEL1 endoplasmic reticulum: 95 kDa.

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

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



ECEL1 (P-15): sc-11339. Western blot analysis of ECEL1 expression in Jurkat whole cell lysate.

PROTOCOLS

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