SANTA CRUZ BIOTECHNOLOGY, INC.

IDE (N-15): sc-27265

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Insulin degrading enzyme (IDE), initiates the cleavage of Insulin, resulting in Insulin response and resistance. However, IDE also degrades a variety of bio-active peptides, including amyloid-b peptides, implicating IDE in certain age-related changes seen in Alzheimer's disease. Studies show that when the expression of the IDE gene (chromosome 10q23.33) is altered, changes occur not only in glucose homeostasis, but also in the levels of brain Aβ40 and Aβ42 peptides. An IDE inhibitor, bacitracin, inhibits degradation of both Insulin and amylin, indicating that both are degraded through a common proteolytic pathway. Variations in the rate of proteolysis suggest that the function of IDE exhibits conformational dependence, which may lead to possible therapeutic interventions for diabetes, AD and other diseases associated with IDE substrate proteolysis.

CHROMOSOMAL LOCATION

Genetic locus: IDE (human) mapping to 10q23.33; Ide (mouse) mapping to 19 C2.

SOURCE

IDE (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IDE of human origin.

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-27265 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

IDE (N-15) is recommended for detection of IDE 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)], 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).

IDE (N-15) is also recommended for detection of IDE in additional species, including equine, canine, bovine, porcine and avian.

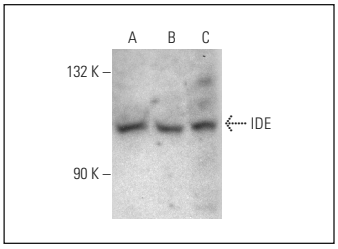
Suitable for use as control antibody for IDE siRNA (h): sc-106817, IDE siRNA (m): sc-146140, IDE shRNA Plasmid (h): sc-106817-SH, IDE shRNA Plasmid (m): sc-146140-SH, IDE shRNA (h) Lentiviral Particles: sc-106817-V and IDE shRNA (m) Lentiviral Particles: sc-146140-V.

Positive Controls: SK-N-SH cell lysate: sc-2410, Hep G2 cell lysate: sc-2227 or IMR-32 cell lysate: sc-2409.

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



IDE (N-15): sc-27265. Western blot analysis of IDE expression in Hep G2 (**A**), SK-N-SH (**B**) and IMR-32 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tan, M.S., et al. 2014. IL12/23 p40 inhibition ameliorates Alzheimer's disease-associated neuropathology and spatial memory in SAMP8 mice. J. Alzheimers Dis. 38: 633-646.

PROTOCOLS

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