

BChE (C-15): sc-46800

BACKGROUND

Present in most cells except erythrocytes, butyrylcholine esterase (BChE), also designated acylcholine acylhydrolase or pseudocholinesterase, has esterase activity as well as aryl acylamidase activity. It hydrolyzes acylcholine into choline and carboxylate. BChE is synthesized in the liver and is highly reactive with organophosphate esters. BChE can form a homotetramer composed of two dimers linked by a disulfide bond. Defects in the gene encoding BChE are associated with the disease hypocholinesterasemia. Inhibition of BChE effects the toxicity of organophosphates in the respiratory system suggesting that BChE may play a role in respiratory function. In addition, BChE may play an important pharmacological role by hydrolyzing toxic esters. This suggests an involvement of BChE in a treatment for intoxication with substances such as cocaine.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BCHE (human) mapping to 3q26.1; Bche (mouse) mapping to 3 E3.

RESEARCH USE

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

SOURCE

BChE (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BChE 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-46800 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BChE (C-15) is recommended for detection of mature BChE and Cholinesterase precursor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); may cross-react with acetylcholinesterase.

BChE (C-15) is also recommended for detection of mature BChE and Cholinesterase precursor in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BChE siRNA (h): sc-60267, BChE siRNA (m): sc-60268, BChE shRNA Plasmid (h): sc-60267-SH, BChE shRNA Plasmid (m): sc-60268-SH, BChE shRNA (h) Lentiviral Particles: sc-60267-V and BChE shRNA (m) Lentiviral Particles: sc-60268-V.

Molecular Weight of BChE: 81 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SK-N-SH cell lysate: sc-2410.

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) 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.

STORAGE

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



Try **BChE (D-5): sc-377403**, our highly recommended monoclonal alternative to BChE (C-15).