

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat Butyrylcholinesterase/BCHE in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse Butyrylcholinesterase/BCHE His28-Leu603 Accession # AAH99977
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Butyrylcholinesterase (BCHE) is a major acetylcholine hydrolyzing enzyme in the circulation (1). Although it is present in significant amounts (~3 mg/L) in human plasma, no endogenous physiological substrate has been described for this enzyme. It can degrade a large number of ester-containing compounds in addition to acylcholines. Thus, it is likely to play significant pharmacological and toxicological roles. It is thought to be involved in the pathological process of Alzheimer's disease (AD) by depleting acetylcholine. In contrast to AChE, it attenuates amyloid fibril formation *in vitro* (2). BCHE inhibitors have been used to delay symptoms of AD patients by virtue of their ability to enhance acetylcholine availability (3). Its involvement in a cholinergic anti-inflammatory pathway connect BCHE and AChE with a possible marker of low-grade systemic inflammation observed in Type-2 diabetes, obesity, hypertension, coronary heart disease, and AD (4). BCHE can exist in monomeric and multimeric forms (1).

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