

**Anti-Acetylcholinesterase (bovine brain, AChE)
 Mouse monoclonal antibody**

 Subclass: IgG₁/k

PRODUCT NO.

HYB 101-03

Clone: 2E7

PRESENTATION

 Preparation: Protein-A/G purified
 Content: Available in 200 µL and 1 mL volumes, 1 mg/mL
 Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide
 Storage: In the dark at 4-8°C

ANTIGEN

Acetylcholinesterase (AChE) is an enzyme located in the postsynaptic membrane and in the muscle endplates, where it hydrolyses the neurotransmitter acetylcholin. AChE from brain is a tetramer (G4-AChE) with a molecular mass of 320 kDa, AChE from erythrocytes is a dimer (G2-AChE) with a molecular mass of 170 kDa.

IMMUNOGEN

Bovine G4-acetylcholinesterase, purified, detergent solubilized and adsorbed onto aluminum hydroxide gel(1)

SPECIFICITY

HYB 101-03 is specific for native, heat denatured and SDS plus heat denatured AChE.

EPI TOPE SPECIFICITY

Not determined

REACTIVITY

HYB 101-03 reacts with AChE from bovine and cross-react with human brain or erythrocytes AChE in ELISA. No cross-reactivity is seen with human AChE in Western blotting. No cross-reactivity to BtChE from human serum, AChE from flounder body muscle or Torpedo marmorata.

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

X63-Ag8.653

IMMUNIZATION

Female CF1 x BALB/c mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	Dilution guideline	References
ELISA	Yes	1/4000	
Immunoblotting	Yes		
Immunohistochemistry	Not determined		

The dilution guideline for ELISA is based on plates coated with anti-mouse antibody to catch the monoclonal antibody followed by recombinant human AChE at 20 units/mL. Detection is done with Ellmans reagent. Users should determine the optimal dilutions for their own purpose.

REFERENCES

- Sorensen K, Gentinetta R, Brodbeck U (1982) An amphiphile-dependent form of human brain caudate nucleus acetylcholinesterase: purification and properties. *J Neurochem* 39:1050-1060.
- Massoulie J, Bon S (1982) The molecular forms of cholinesterase and acetylcholinesterase in vertebrates. *Annu Rev Neurosci* 5:57-106.
- Liao J, Boschetti N, Mortensen V, Jensen SP, Koch C, Norgaard-Pedersen B, Brodbeck U (1994) Characterization of salt-soluble forms of acetylcholinesterase from bovine brain. *J Neurochem* 63:1446-1453.
- Liao J, Mortensen V, Noregaard-Pedersen B, Koch C, Brodbeck U (1993) Monoclonal antibodies against brain acetylcholinesterases which recognize the subunits bearing the hydrophobic anchor. *Eur J Biochem* 215:333-340.
- Aziz-Aloya R, Sternfeld M, Soreq H (1993) Promoter elements and alternative splicing in the human AChE gene. *Prog Brain Res* 98:147-153.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.