

Anti-Acetylcholinesterase [Elec408] Standard Size Ab03223-1.1

Isotype and Format: Mouse IgG1, Kappa

Clone Number: Elec408

Alternative Name(s) of Target: AChE; EC 3.1.1.7

UniProt Accession Number of Target Protein: O42275

Published Application(s): crystallization, inhibition, RIA, SPR

Published Species Reactivity: Electrophorus electricus

Immunogen: The original antibody was generated by immunizing mice against Electrophorus electricus acetylcholinesterase.

Specificity: The antibody is specific for EeAChE, and it targets an epitope located in the backdoor region, distant from the gorge entrance. The antibody does not cross react with human AChE, bovine AChE, Torpedo AChE, and snake AChE or denatured AChE. The antibody binds the EeAChE subunit non-competitively with PAS ligands Fas2, Elec403 and Elec410.

Application Notes: The original antibody (IgG1) bound AChE with high affinity and strongly inhibited the antigen with an apparent K_i value less than 0.1 nM. The relative affinity of the antibody for AChE was evaluated using a competitive radioimmunoassay ($K_d = 38$ pM). The inhibition of E. electricus AChE by the antibody was studied as a function of substrate concentration, the inhibition obtained with the antibody was about 75 % (Remy et al., 1995; PMID: 7649165). The epitope mapping was studied by site-directed mutagenesis, showing the antibody binds to the AChE back door (Simon et al., 1999; PMID: 10488117). The structure of the Fab fragment was determined by X-ray (Bourne et al., 2013; PMID: 24146971).

Antibody First Published in: Remy et al. Characterization of monoclonal antibodies that strongly inhibit Electrophorus electricus acetylcholinesterase. Eur J Biochem 231: 651-658. [PMID:7649165](#)

Note on publication: The paper describes the generation and characterization of the antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration:

1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.