

Anti-Cocaine [15A10] Bulk Size Ab03749-23.0-BT

Isotype and Format: Rabbit IgG, Lambda

Clone Number: 15A10

Alternative Name(s) of Target: Benzoylmethylecgonine; coca; coke; crack; ChEBI: 27958

UniProt Accession Number of Target Protein:

Published Application(s): in vivo, ELISA

Published Species Reactivity: Species independent

Immunogen: The original antibody was generated by immunizing BALB/c mice with BSA conjugated transition state analogs of cocaine.

Specificity: This antibody hydrolyzes the benzoyl ester of cocaine to form the nonpsychoactive metabolites benzoic acid and ecgonine methylester. Cocaine is a strong stimulant used clinically as a local analgesic and vasoconstrictor and illegally as a recreational drug.

Application Notes: This catalytic antibody is capable of cocaine to its non psychoactive metabolites. The rate of acceleration of the catalytic antibody was reported to be ($k_{cat}/k_{uncat} = 2.3 \times 10^4$). Competitive ELISA was used for the detection of binding of this antibody to the transition-state analogue of cocaine (Yang et al., 1996). In a model of cocaine overdose, this antibody protected rats from cocaine-induced seizures and sudden death in a dose-dependent fashion; a noncatalytic anticocaine antibody did not reduce toxicity. In a model of cocaine addiction, this antibody blocked completely the reinforcing effect of cocaine in rats (PMID: 9707620).

Antibody First Published in: Landry et al. Anti-cocaine catalytic antibodies--a novel approach to the problem of addiction. J Addict Dis. 1997;16(3):1-17. [PMID:9243335](#)

Note on publication: Describes the generation of catalytic antibodies with hydrolytic activity against cocaine.

Product Form

Size: 1 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.