BOSTER BIOLOGICAL TECHNOLOGY Co.,Ltd.
3942 B Valley Ave, Pleasanton, CA, 94566
Phone: 888-466-3604 Fax: 925-215-2184 Email: boster@bosterbio.com Web: www.bosterbio.com

Polyclonal Anti- MAOA Picoband™ Antibody

Catalog Number: PB9664

Description

Gene Name	monoamine oxidase A
Recommended Protein Name	Amine oxidase [flavin-containing] A
Lot No.	0961512Da856496
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** human, mouse, rat
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MAOA (457-493aa REVLNGLGKVTEKDIWVQEPESKDVPAVEITHTFWER), different from the related mouse sequence by five amino acids, and from the related rat sequence by six amino acids.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Hu, Ms, Rat	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1μg/ml	Hu, Ms, Rat	By Heat

Tested Species: In-house tested species with positive results.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

MAOA(Monoamine oxidase A), also known as AMINE OXIDASE (FLAVIN-CONTAINING) A, is an enzyme that in humans is encoded by the MAO-A gene. MAOA is an isozyme of monoamine oxidase which is also mapped on Xp11.3. MAOA degrades amine neurotransmitters, such as dopamine, norepinephrine, and serotonin. The protein localizes to the outer mitochondrial membrane. Mutation in MAOA results in monoamine oxidase deficiency, or Brunner syndrome. In humans, there is a 30-base repeat sequence repeated in one of several different numbers of times in the promoter region of the gene coding for MAOA. MAO-A levels in the brain as measured using positron emission tomography are elevated by an average of 34% in patients with major depressive disorder. Inhibition of MAOA prevented apoptosis, and serum starvation of cortical brain cells from Maoa-deficient mice resulted in reduced apoptosis compared with wildtype mice.

Reference

1. Breakefield, X. O., Ozelius, L., Hsu, Y. P., Powell, J., Utterback, M., Gusella, J. F., Bruns, G. A. Gene for A form of human monoamine oxidase (MAOA) maps to Xp21-Xp11. (Abstract) Am. J. Hum. Genet. 41: A209 only, 1987.
2. Brunner, H. G., Nelen, M., Breakefield, X. O., Ropers, H. H., van Oost, B. A. Abnormal behavior associated with a point mutation in the structural gene for monoamine oxidase A. Science 262: 578-580, 1993.
3. PDB 2BXS; De Colibus L, Li M, Binda C, Lustig A, Edmondson DE, Mattevi A (September 2005). "Three-dimensional structure of human monoamine oxidase A (MAO A): relation to the structures of rat MAO A and human MAO B".