

Polyclonal Anti-ADRA2A Antibody

Catalog Number: PA2197

Description

Gene Name	adrenoceptor alpha 2A
Recommended Protein Name	Alpha-2A adrenergic receptor
Lot No.	0211312c049788
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human Predicted to work with: mouse, rat
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human ADRA2A(213-228aa ILVYVRIYQIAKRTR), identical to the related mouse and rat sequences.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	Ms, Rat	-

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

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

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.

Background

The alpha-2A adrenergic receptor, also known as ADRA2A denotes the human gene encoding it. This gene is mapped to 10q25.2. Alpha-2-adrenergic receptors are members of the G protein-coupled receptor superfamily. They include 3 highly homologous subtypes: alpha2A, alpha2B, and alpha2C. These receptors have a critical role in regulating neurotransmitter release from sympathetic nerves and from adrenergic neurons in the central nervous system. Studies in mouse revealed that both the alpha2A and alpha2C subtypes were required for normal presynaptic control of transmitter release from sympathetic nerves in the heart and from central noradrenergic neurons; the alpha2A subtype inhibited transmitter release at high stimulation frequencies, whereas the alpha2C subtype modulated neurotransmission at lower levels of nerve activity. This gene encodes alpha2A subtype and it contains no introns in either its coding or untranslated sequences. Alpha-2 adrenergic receptors mediate the catecholamine-induced inhibition of adenylate cyclase through the action of G proteins.

Reference

1. Philipp, M., Brede, M. E., Hadamek, K., Gessler, M., Lohse, M. J., Hein, L. Placental alpha-2-adrenoceptors control vascular development at the interface between mother and embryo. *Nature Genet.* 31: 311-315, 2002.
2. Rosengren, A. H., Jokubka, R., Tojjar, D., Granhall, C., Hansson, O., Li, D.-Q., Nagaraj, V., Reinbothe, T. M., Tuncel, J., Eliasson, L., Groop, L., Rorsman, P., Salehi, A., Lyssenko, V., Luthman, H., Renstrom, E. Overexpression of alpha2A-adrenergic receptors contributes to type 2 diabetes. *Science* 327: 217-220, 2010.