EB07133 - Goat Anti-ADRB1 Antibody

Size: 100µg specific antibody in 200µl

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Target Protein

Principal Names: ADRB1, adrenergic, beta-1-, receptor, ADRB1R, B1AR, BETA1AR, RHR, beta-1-adrenergic receptor
Official Symbol: ADRB1
Accession Number(s): NP_000675.1
Human GeneID(s): 153

Immunogen

Peptide with sequence ESDEARRCYNDPK, from the internal region of the protein sequence according to NP_000675.1.

Please note the peptide is available for sale.

Purification and Storage

Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Aliquot and store at -20°C. Minimize freezing and thawing.

Applications Tested

Peptide ELISA: antibody detection limit dilution 1:64000.
Western blot: Approx 55kDa band observed in Human Heart lysates (calculated MW of 51.2kDa according to NP_000675.1). Recommended concentration: 0.5-1.5µg/ml. Primary incubation was 1 hour.

Species Reactivity

Tested: Human
Expected from sequence similarity: Human, Mouse, Rat, Dog

Specific References

This antibody has been successfully used in Assay Standardization of Rat Cardiomyocytes:
Gerd Wallukat , Harald Pruss, Johannes Muller , Ingolf Schimke
Functional autoantibodies in patients with different forms of dementia
PLoS One. 2018 Mar 14;13(3):e0192778.
PMID: 29538413

This antibody has been successfully used in the following paper:
Wenzel K, Schulze-Rothe S, Müller J, Wallukat G, Haberland A.
Difference between beta1-adrenoceptor autoantibodies of human and animal origin-Limitations detecting beta1-adrenoceptor autoantibodies using peptide based ELISA technology.
PLoS One. 2018 Feb 9;13(2):e0192615
PMID: 29425252

This antibody has been successfully used in the following paper:
Wenzel K, Schulze-Rothe S, Haberland A, Müller J, Wallukat G, Davideit H
Performance and in-house validation of a bioassay for the determination of beta1-auto antibodies found in patients with cardiomyopathy.
Heliyon. 2017 Jul 31;3(7): e00362.
PMID: 28795160

This antibody has been successfully used for In Vitro Testing of Apheresis Column Functionality in Rat:

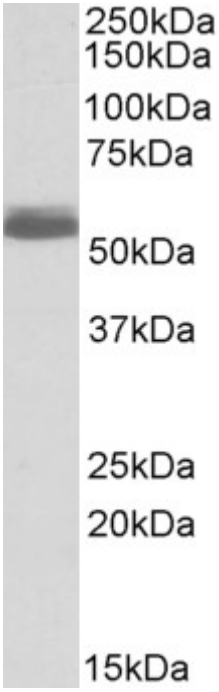
Wallukat G, Haberland A, Berg S, Schulz A, Freyse EJ, Dahmen C, Kage A, Dandel M, Vetter R, Salzsieder E, Kreutz R, Schimke I.
The first aptamer-apheresis column specifically for clearing blood of β1-receptor autoantibodies.
Circ J. 2012;76(10):2449-55.
PMID: 22850243

This antibody has been successfully used in IP on DNA aptamers in vitro:

Haberland A, Wallukat G, Dahmen C, Kage A, Schimke I.
Aptamer neutralization of beta1-adrenoceptor autoantibodies isolated from patients with cardiomyopathies.
Circ Res. 2011 Oct 14;109(9):986-92.
PMID: 21868696

This antibody has been successfully used in Assay Standardization (beating frequency) of Rat Cardiomyocytes:

Wallukat G, Muñoz Saravia SG, Haberland A, Bartel S, Araujo R, Valda G, Duchen D, Diaz Ramirez I, Borges AC, Schimke I.
Distinct patterns of autoantibodies against G-protein-coupled receptors in Chagas' cardiomyopathy and megacolon. Their potential impact for early risk assessment in asymptomatic Chagas' patients.
J Am Coll Cardiol. 2010 Feb 2;55(5):463-8.
PMID: 20117461



EB07133 (0.5µg/ml) staining of Human Heart lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.