Datasheet for ABIN968033

anti-beta Arrestin 1 antibody (AA 262-409)

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Overview

Quantity:	150 µg
Target:	beta Arrestin 1 (ARRB1)
Binding Specificity:	AA 262-409
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This beta Arrestin 1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Rat beta-Arrestin1 aa. 262-409
Clone:	10-Beta
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Human
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	beta Arrestin 1 (ARRB1)
Alternative Name:	beta-Arrestin1 (ARRB1 Products)
Background:	Beta-Arrestins were discovered due to their ability to modulate interactions between the phosphorylated beta2-Adrenergic receptors and G proteins. This modulation results in diminished beta2-Adrenergic receptor function, also known as desensitization. Because CoA and C27-bile acyl-CoAs to their (S)-stereoisomers, which are the only stereoisomers degraded by peroxisomal alpha-oxidation. Interestingly, AMACR mutations have been linked to some sensory motor neuropathies where accumulation of fatty acids and AMACR deficiencies correlate with pathogenesis. AMACR contains an N-terminal region required for mitochondrial localization, and a C-terminal peroxisomal targeting signal type 1 (PTS). AMACR mRNA is expressed preferarrestins are found at the synaptic terminals, they may provide a termination mechanism that allows the neurons to regain their original polarization and respond to a new neurotransmitter stimulus. The C-terminal region of arrestins is involved in selecting the phosphorylated and activated adrenergic receptors. The beta-Arrestin1 gene encodes a protein of 418 amino acids with an approximate molecular weight of 55kDa. beta-Arrestin1 protein is highly homologous to the 45kDa beta-Arrestin2. Both proteins are widely expressed, but are especially abundant in the central nervous system. This antibody is routinely tested by western blot analysis of AMACR enzymatic activity found in the mitochondria relative to the peroxisomes differs depending on the species. Thus, AMACR is an enzyme critical for fatty acid degradation, and bile formation.
Molecular Weight:	55 kDa
Pathways:	Positive Regulation of Peptide Hormone Secretion, Nuclear Hormone Receptor Binding, cAMP Metabolic Process, Myometrial Relaxation and Contraction, Synaptic Membrane, Regulation of G-Protein Coupled Receptor Protein Signaling, Phototransduction

Application Details

Comment:	Related Products: ABIN968555, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

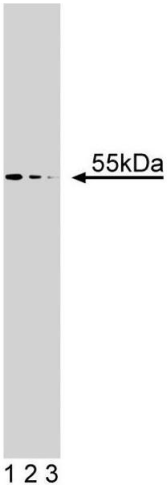
Dalle, Imamura, Rose, Worrall, Ugi, Hupfeld, Olefsky: "Insulin induces heterologous desensitization of G-protein-coupled receptor and insulin-like growth factor I signaling by downregulating beta-arrestin-1." in: **Molecular and cellular biology**, Vol. 22, Issue 17, pp. 6272-85, (2002) (PubMed).

Imamura, Huang, Dalle, Ugi, Usui, Luttrell, Miller, Lefkowitz, Olefsky: "beta -Arrestin-mediated recruitment of the Src family kinase Yes mediates endothelin-1-stimulated glucose transport." in: **The Journal of biological chemistry**, Vol. 276, Issue 47, pp. 43663-7, (2001) (PubMed).

DeFea, Zalevsky, Thoma, Déry, Mullins, Bunnett: "beta-arrestin-dependent endocytosis of proteinase-activated receptor 2 is required for intracellular targeting of activated ERK1/2." in: **The Journal of cell biology**, Vol. 148, Issue 6, pp. 1267-81, (2000) (PubMed).

Gurevich, Dion, Onorato, Ptasienski, Kim, Sterne-Marr, Hosey, Benovic: "Arrestin interactions with G protein-coupled receptors. Direct binding studies of wild type and mutant arrestins with rhodopsin, beta 2-adrenergic, and m2 muscarinic cholinergic receptors." in: **The Journal of biological chemistry**, Vol. 270, Issue 2, pp. 720-31, (1995) (PubMed).

Attramadal, Arriza, Aoki, Dawson, Codina, Kwatra, Snyder, Caron, Lefkowitz: "Beta-arrestin2, a novel member of the arrestin/beta-arrestin gene family." in: **The Journal of biological chemistry**, Vol. 267, Issue 25, pp. 17882-90, (1992) (PubMed).



Western Blotting

Image 1. Western blot analysis of beta-Arrestin on a mouse macrophage lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti- beta-Arrestin antibody.

Image 2.