

## AM26190PU-N

## Monoclonal Antibody to Beta-2 adrenergic receptor - Purified

**Alternate names:**

ADRB2, ADRB2R, B2AR, Beta-2 adrenoreceptor

**Quantity:**

0.1 mg

**Concentration:**

0.1 mg/ml

**Background:**

The b -adrenoceptors can be divided into b1, b2, b3 and b4-adrenoceptors defined in terms of agonist potencies, b2-adrenoceptors displayed a higher selectivity for nor-adrenaline than for adrenaline.

B2-receptors are mainly postsynaptic and are located on a number of tissues including blood vessels, bronchi, GIT, skeletal muscle, liver and mast cell. Activation results in vasodilatation, bronchodilation, relaxation of the GIT, glycogenolysis in the liver, tremor in skeletal muscle and inhibition of histamine release from mast cells. Transduction is via G-proteins coupled to the intracellular second messenger adenylate cyclase. B-receptors are positively coupled to adenylate cyclase via activation of Gs G-protein, however activation of the b2-adrenoceptors results in stimulation and inhibition of adenylate cyclase. The b2-receptor selective agonists are widely used in the treatment of asthma and other related bronchospastic conditions. They are commonly used in the treatment of angina pectoris, cardiac arrhythmia and for the long-term treatment of patients who survive myocardial infarction. B-receptor antagonists have also been used as anti-hypertensive for a number of years. Beta -blockers have also proven useful in the treatment of conditions such as migraine, anxiety disorders, hyperthyroidism, alcohol withdrawal and when applied topically are useful in the treatment of glaucoma and ocular hypertension.

**Uniprot ID:**

[P07550](#)

**NCBI:**

[NP\\_000015.1](#)

**GeneID:**

[154](#)

**Host / Isotype:**

Mouse / IgG1

**Recommended Isotype Controls:**

SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

**Clone:**

6H8

**Immunogen:**

Free peptide Beta2-H19C

**Format:**

**State:** Liquid 0.2 µm filtered Ig fraction  
**Purification:** Protein G Chromatography  
**Buffer System:** PBS  
**Stabilizers:** 0.1% BSA

**Applications:**

**Flow Cytometry:** A431 Human epidermoid cells in suspension for 1 h at 4°C in PBS containing monoclonal Antibody 6H8 (260 nM). After 1 h of incubation, the cells were fixed with 2% Formaldehyde (Ref.1: Lebesgue). The typical starting working dilution is 1/50.

**Functional Assays:** Antibody 6H8 functions as an agonist in neonatal Rat

cardiomyocytes (Ref 1, Lebesgue). Furthermore, Fab fragments of agonist-like antibody 6H8 behave as antagonist (Ref.2: Mijares).

**Immunoassay:** Useful as detector in an ELISA setting (Ref.1: Lebesgue).

**Positive Control:** Human epidermoid carcinoma cell A431 line.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

The monoclonal antibody 6H8 recognizes Human beta-2-Adrenoceptor.

**Species Reactivity:**

**Tested:** Human, Rat, Guinea Pig.

**Storage:**

Store undiluted at 2-8°C.

**DO NOT FREEZE!**

Shelf life: one year from despatch.

**General Readings:**

1. Lebesgue D, Wallukat G, Mijares A, Granier C, Argibay J, Hoebeke J. An agonist-like monoclonal antibody against the human beta2-adrenoceptor. Eur J Pharmacol. 1998 May 1;348(1):123-33. PubMed PMID: 9650839.

2. Mijares A, Lebesgue D, Wallukat G, Hoebeke J. From agonist to antagonist: Fab fragments of an agonist-like monoclonal anti-beta(2)-adrenoceptor antibody behave as antagonists. Mol Pharmacol. 2000 Aug;58(2):373-9. PubMed PMID: 10908305.