MONOCLONAL ANTIBODY TO
HUMAN BETA2-ADRENOCEPTOR (B2-ADRENOCEPTOR)
clone 6H8

Catalog no
HM2238 (lot number and expiry date are indicated on the label)

Description
The monoclonal antibody 6H8 recognizes human beta2-adrenoceptor. The β-adrenoceptors can be divided into β1, β2, β3 and β4-adrenoceptors defined in terms of agonist potencies, β2-adrenoceptors displayed a higher selectivity for nor-adrenaline than for adrenaline.

β2-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 β2-adrenoceptors results in stimulation and inhibition of adenylate cyclase. The β2-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.

Immunogen
Free peptide Beta2-H19C

Species
Mouse IgG1

Cross reactivity

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<thead>
<tr>
<th>Cross reactant</th>
<th>Reactivity</th>
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<td>Rat</td>
<td>Yes</td>
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<td>Guinea Pig</td>
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Formulation
1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin

Application

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<th>F</th>
<th>FC¹</th>
<th>FS¹²</th>
<th>IA¹</th>
<th>IF</th>
<th>IP</th>
<th>P</th>
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N.D.= Not Determined; F = Frozen sections; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IF = Immuno Fluorescence; IP = Immuno Precipitation; P = Paraffin sections; W = Western blot

Application notes
FC: 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).

FS: Antibody 6H8 functions as an agonist in neonatal rat cardiomyocytes (Ref 1). Furthermore, Fab fragments of agonist-like antibody 6H8 behave as antagonist. (Ref 2).

IA: The antibody against beta2-adrenoceptor is useful as detector in an ELISA setting (Ref 1)

References

Use
For flow cytometry, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For functional studies, in vitro dilutions have to be optimized in user’s experimental setting.

Positive control
Human epidermoid carcinoma cell A431 line

Storage and stability
Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.
**Precautions**

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

**Also available**

- **HM2239** Monoclonal antibody against Human Muscarinic acetylcholine receptor M2, clone B8E5
- **HM2016** Monoclonal antibody against Human H-FABP, clone 66E2
- **HM2018** Monoclonal antibody against Human H-FABP, clone 67D3