

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human $\alpha$ -2A Adrenergic R/ADRA2A in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 1006614
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Synthetic peptide containing Human $\alpha$ -2A Adrenergic R/ADRA2A
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

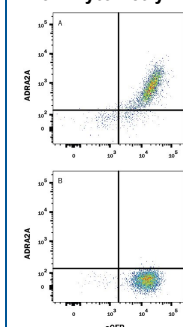
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25 $\mu$ g/10 <sup>6</sup> cells	See Below
<b>CytoF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA

### Flow Cytometry



**Detection of ADRA2A in HEK293 Human Cell Line Transfected with Human ADRA2A and eGFP by Flow Cytometry.** HEK293 human embryonic kidney cell line transfected with either (A) human ADRA2A or (B) irrelevant transfectants and eGFP was stained with Mouse Anti-Human ADRA2A Monoclonal Antibody (Catalog # MAB10129) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). Quadrant markers were set based on control antibody staining (Catalog # MAB002). View our protocol for [Staining Membrane-associated Proteins](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Alpha-2-adrenergic receptors, including ADRA2A, 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 ADRA2A and ADRA2C subtypes were required for normal presynaptic control of transmitter release from sympathetic nerves in the heart and from central noradrenergic neurons. The ADRA2A subtype inhibited transmitter release at high stimulation frequencies, whereas the ADRA2C subtype modulated neurotransmission at lower levels of nerve activity.