

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                   |
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| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                                             |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse NPRA/NPR1 in direct ELISAs.                                                                         |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Rat IgG <sub>2A</sub> Clone # 488620                                                                   |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                                        |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant mouse NPRA/NPR1<br>Ser29-Glu469 (predicted)<br>Accession # P18293 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                   |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                      |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                   |

## 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.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Mouse NPR1 (natriuretic peptide receptor-1; also ANP-R1 or guanylyl cyclase-A) is a 130 kDa member of the guanylyl cyclase family of proteins. It is a type I transmembrane glycoprotein that contains a 441 aa extracellular domain (ECD) (aa 29-469) and a 567 aa cytoplasmic region. The cytoplasmic region shows a tyrosine kinase and guanylyl cyclase catalytic domain. NPR1 operates as an oligomer and binds both ANP (atrial natriuretic peptide) and BNP (B-type natriuretic peptide). ANP binding induces bronchodilation and a reduction in blood pressure. Over aa 29-469, mouse NPR1 is 97% and 86% aa identical to rat and human NPR1, respectively.

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