

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human NPR1/NPRA in direct ELISAs.                                                                                                                                                                                                                                   |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 377018                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human NPR1/NPRA<br>Gly33-Glu473<br>Accession # P16066                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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

Natriuretic peptide receptor A/guanylate cyclase A (NPR1), also called NPRA or GC-A, is a 120-140 kDa type I transmembrane glycoprotein that is the primary receptor for natriotic peptides ANP and BNP. Binding of ANP to the extracellular ligand binding domain (aa 54-415), plus ATP to the intracellular kinase homology domain (aa 528-805) activates a cytoplasmic guanylate cyclase (aa 840-1023). NPR1 is expressed most highly in kidney, adrenal and adipose tissue. Human NPR1 extracellular domain shows 86%, 44% and 34% aa identity with mouse NPR1, human NPRB and human NPRC, respectively.

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