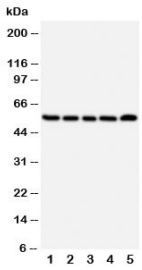
# NK1R Antibody Neurokinin 1 Receptor (R30769)

| Catalog No. | Formulation | Size |
|---|---|---|
| R30769 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity |
| **Buffer** | Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal |
| **UniProt** | P25103 |
| **Applications** | Western Blot : 0.5-1ug/ml |
| **Limitations** | This NK1R antibody is available for research use only. |




Western blot testing of NK1R antibody and Lane 1: A549; 2: U87; 3: COLO320; 4: SCG; 5: PANC cell lysate

## Description

The Tachykinin receptor 1 (TACR1), also known as Neurokinin 1 receptor (NK1R) or Substance P receptor (SPR) is a G protein coupled receptor found in the central nervous system and peripheral nervous system. The endogenous ligand for this receptor is Substance P, although it has some affinity for other tachykinins. The protein is the product of the TACR1 gene. The protein consists of 407 amino acid residues, and it has a molecular weight of 58.000. Tachykinin receptor 1, as well as the other tachykinin receptors, is made of seven hydrophobic transmembrane(TM) domains with three extracellular and three intracellular loops, an amino-terminus and a cytoplasmic carboxy-terminus. The loops have functional sites, including two cysteines amino acids for a disulfide bridge, Asp-Arg-Tyr, which is responsible for association with arrestin and, Lys/Arg-Lys/Arg-X-X-Lys/Arg, which interacts with G-proteins. The NK1R can be found in

both the central and peripheral nervous system. It is present in neurons, brainstem, vascular endothelial cells, muscle, gastrointestinal tracts, genitourinary tract, pulmonary tissue, thyroid gland and different types of immune cells. The binding of SP to NK1R has been associated with the transmission of stress signals and pain, the contraction of smooth muscles and inflammation. NK1R antagonists have also been studied in migraine, emesis and psychiatric disorders.

## Application Notes

The stated application concentrations are suggested starting amounts. Titration of the NK1R antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

An amino acid sequence from the middle region of human Neurokinin 1 Receptor (DSSDRYHEQVSAKRK) was used as the immunogen for this NK1R antibody (100% homologous in human, mouse and rat).

## Storage

After reconstitution, the NK1R antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.