10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-TACR1 Picoband Antibody

Catalog # ABO12135

Specification

Anti-TACR1 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P25103
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Substance-P receptor(TACR1) detection. Tested with WB in Human;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-TACR1 Picoband Antibody - Additional Information

Gene ID 6869

Other Names
Substance-P receptor, SPR, NK-1 receptor, NK-1R, Tachykinin receptor 1, TACR1, NK1R, TAC1R

Calculated MW
46251 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Cell membrane; Multi-pass membrane protein.

Protein Name
Substance-P receptor

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human TACR1 (264-291aa FHIFFLLPYINPDLYLKKFIQQVYLAIM), different from the related mouse sequence by one amino acid, and from the related rat sequence by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the G-protein coupled receptor 1 family.

Anti-TACR1 Picoband Antibody - Protein Information

Name TACR1

Synonyms NK1R, TAC1R

Function
This is a receptor for the tachykinin neuropeptide substance P. It is probably associated with G proteins that activate a phosphatidylinositol-calcium second messenger system. The rank order of affinity of this receptor to tachykinins is: substance P > substance K > neuromedin-K.

Cellular Location
Cell membrane; Multi-pass membrane protein.

Anti-TACR1 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-TACR1 Picoband Antibody - Images

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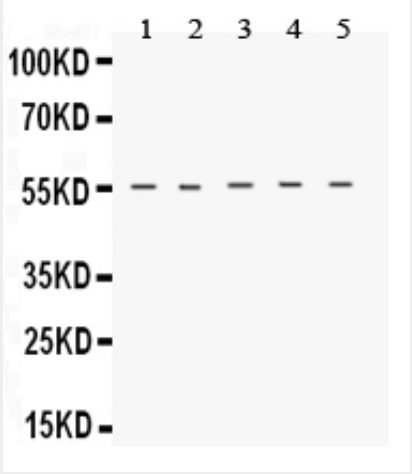

Anti- TACR1 Picoband antibody, ABO12135, Western blottingAll lanes: Anti TACR1 (ABO12135) at 0.5ug/mlLane 1: Human Placenta Tissue Lysate at 50ugLane 2: Rat Lung Tissue Lysate at 50ugLane 3: Rat Brain Tissue Lysate at 50ugLane 4: U87 Whole Cell Lysate at 40ugLane 5: A431 Whole Cell Lysate at 40ugPredicted bind size: 46KDObserved bind size: 55KD

Anti-TACR1 Picoband Antibody - Background

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. Tachykinin receptor 1 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 tachykinin receptor 1 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 the tachykinin receptor 1 has been associated with the transmission of stress signals and pain, the contraction of smooth muscles and inflammation. Tachykinin receptor 1 antagonists have also been studied in migraine, emesis and psychiatric disorders. In fact, aprepitant has been proved effective in a number of pathophysiological models of anxiety and depression. Other diseases in which the tachykinin receptor 1 system is involved include asthma, rheumatoid arthritis and gastrointestinal disorders.