

Anti-TACR1 Antibody
Catalog # ABO10997**Specification**

Anti-TACR1 Antibody - Product Information

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

Description

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

Reconstitution

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

Anti-TACR1 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, Mouse

Subcellular Localization

Cell membrane; Multi-pass membrane protein.

Protein Name

Substance-P receptor(SPR)

Contents

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

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human TACR1 (231-245aa DSSDRYHEQVSAKRK), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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 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.

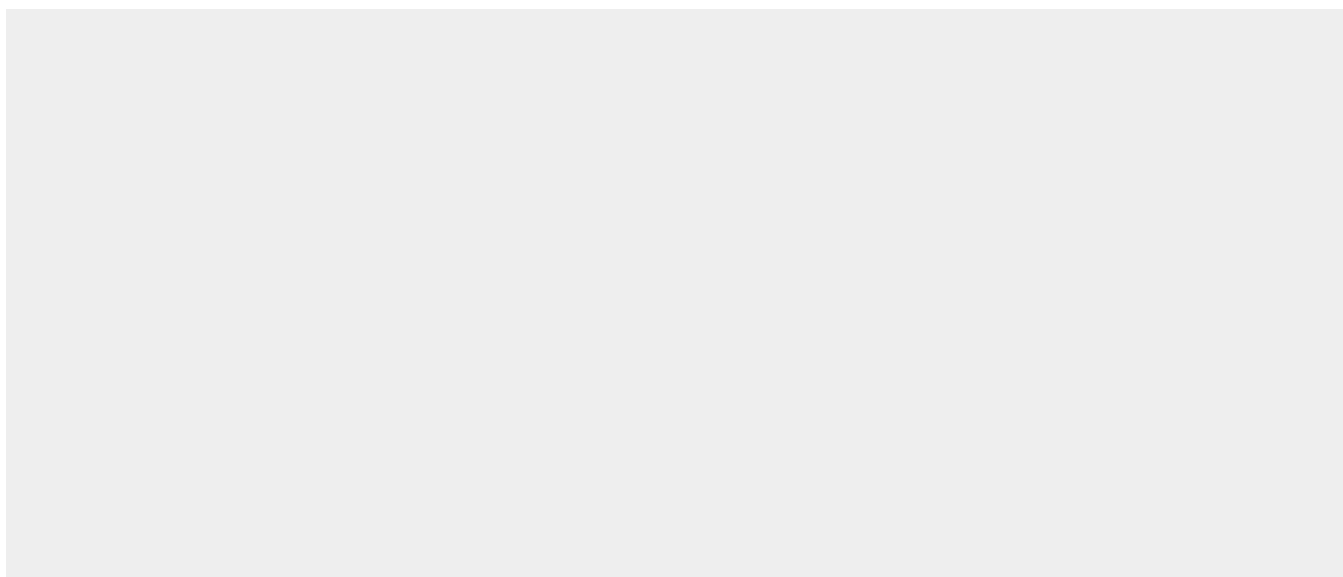
Cellular Location

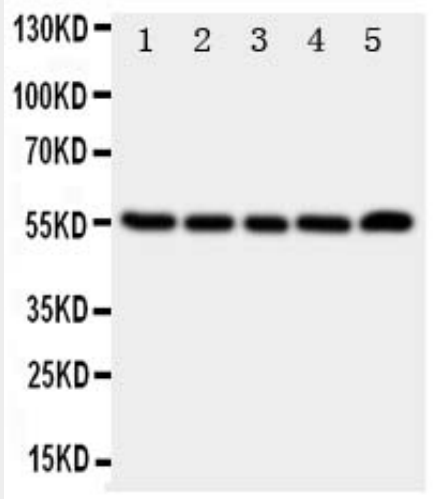
Cell membrane; Multi-pass membrane protein.

Anti-TACR1 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 Cytometry](#)
- [Cell Culture](#)

Anti-TACR1 Antibody - Images



Anti-TACR1 antibody, ABO10997, Western blotting All lanes: Anti TACR1 (ABO10997) at 0.5ug/ml
Lane 1: A549 Whole Cell Lysate at 40ug
Lane 2: U87 Whole Cell Lysate at 40ug
Lane 3: COLO320 Whole Cell Lysate at 40ug
Lane 4: SCG Whole Cell Lysate at 40ug
Lane 5: PANC Whole Cell Lysate at 40ug
Predicted bind size: 45KD
Observed bind size: 55KD

Anti-TACR1 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.