Product datasheet

Anti-Neurokinin-1 receptor/TACR1 Antibody

Catalog Number: *BA3678*

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Basic Information

Product Name	Anti-Neurokinin-1 receptor/TACR1 Antibody
Gene Name	TACR1
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human TACR1, identical to the related rat and mouse sequences.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	55 kDa
Dilution Ratios	Western blot (WB):1:500-2000

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

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

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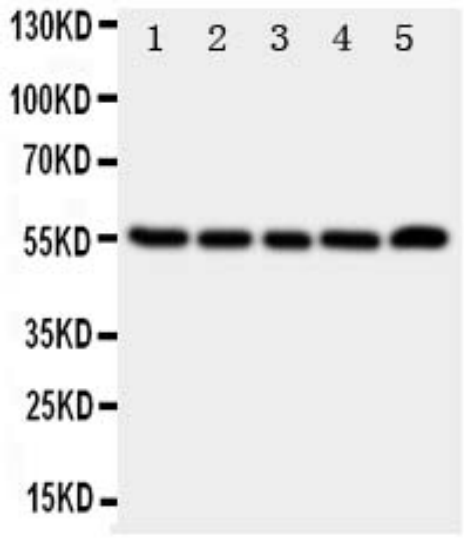
gland and different types of immune cells. The binding of SP to the tachykinin receptor 1 has been associated with the transmission of stress signals and pain, the contraction of smooth muscles and inflammation. Tachykinin receptor 1 antagonists have also been studied in migraine, emesis and psychiatric 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.

Reference

Anti-Neurokinin-1 receptor/TACR1 Antibody被引用在4文献中。

Selected Validation Data



Western blot analysis of Neurokinin-1 receptor/TACR1 using anti-Neurokinin-1 receptor/TACR1 antibody (BA3678). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: A549 whole cell lysates,
Lane 2: U87 whole cell lysates,
Lane 3: COLO320 whole cell lysates,
Lane 4: SCG whole cell lysates,
Lane 5: PANC whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Neurokinin-1 receptor/TACR1 antigen affinity purified polyclonal antibody (BA3678) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Neurokinin-1 receptor/TACR1 at approximately 55 kDa. The expected band size for Neurokinin-1 receptor/TACR1 is at 46 kDa.