

Anti-Neurokinin 1 Receptor Monoclonal Antibody

Catalog # ABO14714

Product Information

Application	WB, IHC, IP
Primary Accession	P25103
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Neurokinin 1 Receptor Monoclonal Antibody . Tested in WB, IHC, IP applications. This antibody reacts with Human, Mouse, Rat.

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
Application Details	WB 1:1000-1:5000 IHC 1:50-1:200 IP 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names Immunogen	Clone: AFBH-20 A synthesized peptide derived from human Neurokinin 1 Receptor 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.
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	TACR1
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Synonyms

NK1R, TAC1R

Function

Receptor for the tachykinin substance P, also able to bind and respond to tachynins neurokinin A/substance K and neurokinin B/neuromedin-K (PubMed:[1718267](#), PubMed:[15452552](#)). The rank order of affinity of this receptor to tachykinins is: substance P > neurokinin A/substance K > neurokinin B/neuromedin-K (PubMed:[1718267](#)). Substance P binding to its receptor triggers G protein-coupled receptor signaling via activation of phosphatidylinositol hydrolysis by phospholipase C. Substance P binding also triggers signaling via activation of adenylate cyclase activity which results in increased intracellular levels of cyclic AMP (cAMP) (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Early endosome {ECO:0000250|UniProtKB:P14600}. Note=After signaling cascade initiation, substance P binding results in receptor internalization and localization to early endosomes, followed by receptor recycling to the cell surface. {ECO:0000250|UniProtKB:P14600}

Images

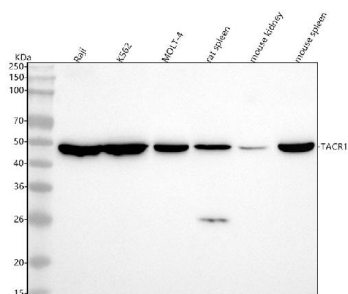
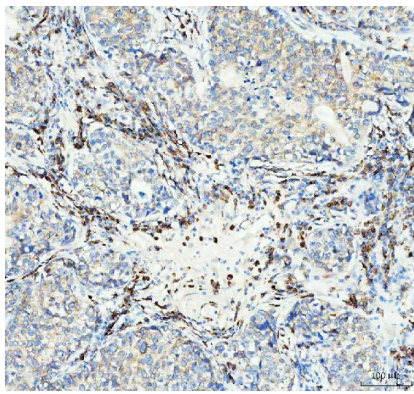


Figure 1. Western blot analysis of Neurokinin 1 Receptor using anti-Neurokinin 1 Receptor antibody (M01006). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Raji whole cell lysates,
Lane 2: human K562 whole cell lysates,
Lane 3: human MOLT-4 whole cell lysates,
Lane 4: rat spleen tissue lysates,
Lane 5: mouse kidney tissue lysates,
Lane 6: mouse spleen tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Neurokinin 1 Receptor antigen affinity purified polyclonal antibody (Catalog # M01006) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Neurokinin 1 Receptor at approximately 48 kDa. The expected band size for Neurokinin 1 Receptor is at 46 kDa.

Figure 2. IHC analysis of Neurokinin 1 Receptor using anti-Neurokinin 1 Receptor antibody (M01006). Neurokinin 1 Receptor was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-Neurokinin 1 Receptor Antibody (M01006) overnight



at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

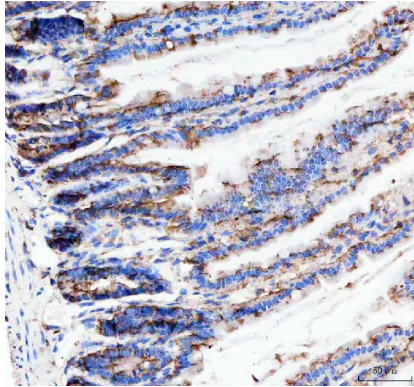


Figure 3. IHC analysis of Neurokinin 1 Receptor using anti-Neurokinin 1 Receptor antibody (M01006). Neurokinin 1 Receptor was detected in a paraffin-embedded section of mouse colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-Neurokinin 1 Receptor Antibody (M01006) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

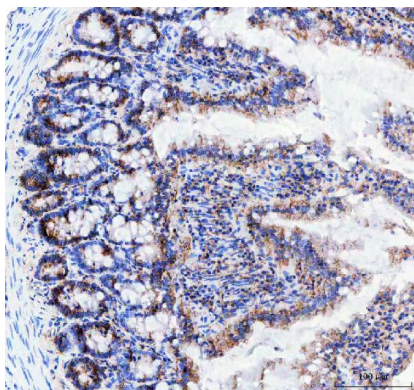


Figure 4. IHC analysis of Neurokinin 1 Receptor using anti-Neurokinin 1 Receptor antibody (M01006). Neurokinin 1 Receptor was detected in a paraffin-embedded section of rat colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-Neurokinin 1 Receptor Antibody (M01006) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.