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[Primary Antibody]

Rabbit Anti-NPSR1 antibody

Catalog Number: SL11430R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	NPSR1
Immunogen:	KLH conjugated synthetic peptide derived from human NPSR1: 201-300/371
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 ICC/IF=1:100-500 IF=1:100-500 ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted: Human, Mouse, Rat, Dog, Pig, Cow, Horse, Sheep)
Predicted MW.:	43kDa
Subcellular Location:	cytoplasmic The cell membrane
Background:	G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR154 (G-protein coupled receptor 154), also known as NPSR1 (neuropeptide S receptor), GPRA (G-protein coupled receptor for asthma susceptibility) or PGR14, is a 371 amino acid protein that is thought to play a role in autocrine or paracrine signaling pathways. Ubiquitously expressed, GPR154 exists as nine

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	alternatively spliced isoforms. Defects in the gene encoding GPR154 is the cause of asthma-related traits type 2 (ASRT2). **Function:** Neuropeptide S receptor 1 (GPR154) is a receptor for Neuropeptide S. It is expressed on the epithelia of several organs including the intestine, and appears to be upregulated in inflammation. It is upregulated in macrophages after antigen challenge and is involved in the pathogenesis of asthma and other IgE-mediated diseases. **Subcellular Location:** Cell Membrane and Cytoplasmic **Tissue Specificity:** Ubiquitous. Isoform 1 is predominantly expressed in smooth muscle. Isoform 4 is predominantly expressed in epithelial cells. In bronchial biopsies, it is expressed in smooth muscle cells of asthma patients, but not in control patients; whereas in epithelial cells, its expression is consistently stronger in asthma patients. DISEASE: Defects in NPSR1 are a cause of asthma-related traits type 2 (ASRT2) [MIM:608584]. Asthma-related traits include clinical symptoms of asthma, such as coughing, wheezing, dyspnea, bronchial hyperresponsiveness as assessed by methacholine challenge test, serum IgE levels, atopy and atopic dermatitis. **Similarity:** Belongs to the G-protein coupled receptor 1 family. Vasopressin/oxytocin receptor subfamily. **Database links:** **Entrez Gene:** 387129 Human **Entrez Gene:** 319239 Mouse **Entrez Gene:** 300458 Rat Omim: 608595 Human **SwissProt:** Q6W5P4 Human **SwissProt:** Q8BZP8 Mouse **SwissProt:** P0C0L6 Rat **Unigene:** 652373 Human NeuropeptideS(neuropeptide S,NPS)is a neuropeptide discovered in 2002,composed of 20 amino acids,and exerts its effects by activating its receptor NPSR. The NPS/NPSR system is involved in regulating arousal and sleep, anxiety, feeding, immunity, and other functions. Neuropeptide S (NPS) activates its cognate receptor (NPSR) and triggers intracellular Ca2+mobilization，thereby regulating insomnia and anxiety，and has the effect of increasing the level of wakefulness in experimental animals and reducing anxiety。

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