



Rabbit Anti-GNB1 antibody

SL0348R

Product Name:	GNB1
Chinese Name:	G蛋白/鸟苷酸Binding protein抗体
Alias:	G protein beta subunit GI/GS/GT; guanine nucleotide binding protein (G protein), beta polypeptide 1; guanine nucleotide-binding protein G; GBB1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	37kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human G protein beta subunit GI:101-200/341
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	G protein beta subunit GI/GS/GT (guanine nucleotide-binding protein G). WD40 domain, found in a number of eukaryotic proteins that cover a wide variety of functions including adaptor/regulatory modules in signal transduction, pre-mRNA processing and cytoskeleton assembly; typically contains a GH dipeptide 11-24 residues from its N-terminus and the WD dipeptide at its C-terminus and is 40 residues long, hence the name

WD40; between GH and WD lies a conserved core; serves as a stable propeller-like platform to which proteins can bind either stably or reversibly; forms a propeller-like structure with several blades where each blade is composed of a four-stranded anti-parallel β -sheet; instances with few detectable copies are hypothesized to form larger structures by dimerization; each WD40 sequence repeat forms the first three strands of one blade and the last strand in the next blade; the last C-terminal WD40 repeat completes the blade structure of the first WD40 repeat to create the closed ring propeller-structure; residues on the top and bottom surface of the propeller are proposed to coordinate interactions with other proteins and/or small ligands; 7 copies of the repeat are present in this alignment.

Function:

Guanine nucleotide-binding proteins (G proteins) are involved as a modulator or transducer in various transmembrane signaling systems. The beta and gamma chains are required for the GTPase activity, for replacement of GDP by GTP, and for G protein-effector interaction.

Subunit:

G proteins are composed of 3 units, alpha, beta and gamma. Interacts with ARHGEF18 and RASD2. The heterodimer formed by GNB1 and GNG2 interacts with PTH1R (via C-terminus).

Post-translational modifications:

Phosphorylation at His-266 by NDKB contributes to G protein activation by increasing the high energetic phosphate transfer onto GDP.

Similarity:

Belongs to the WD repeat G protein beta family.
Contains 7 WD repeats.

SWISS:

P62879

Gene ID:

2782

Database links:

[Entrez Gene: 2782](#)Human

[Entrez Gene: 14688](#)Mouse

[Entrez Gene: 24400](#)Rat

[Omim: 139380](#)Human

[SwissProt: P62873](#)Human

[SwissProt: P62874](#)Mouse

[SwissProt: P54311](#)Rat

[Unigene: 430425](#)Human

[Unigene: 2344](#)Mouse

[Unigene: 126047](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

G蛋白又称: 鸟苷酸Binding

protein, 存在于全身各个组织和细胞中, G蛋白在信息传递中起到很重要的作用, 参与细胞内外信息的相互传导。

激素受体与腺苷酸环化酶是The cell

membrane上两类分开的蛋白质。激素受体结合的部分在The cell

membrane的外表面, 而腺苷环化酶在膜的胞浆面, 在两者之间存在一种起耦联作用的

调节蛋白——鸟苷酸Binding protein (guanine nucleotide-binding regulatory

protein) 细胞受到各种刺激信息, 包括化学性的激素和神经递质及非化学性的声音、

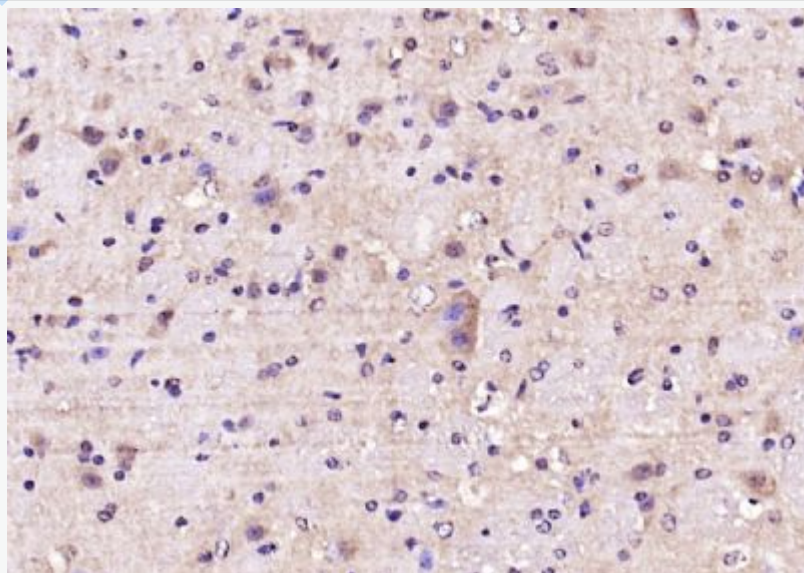
图像等。刺激信息通过G蛋白的激活作用, 在胞浆中生成数目众多的第二信使分子

, 产生十万级放大效应, 引起细胞兴奋, 让后促动器官完成各自功能。

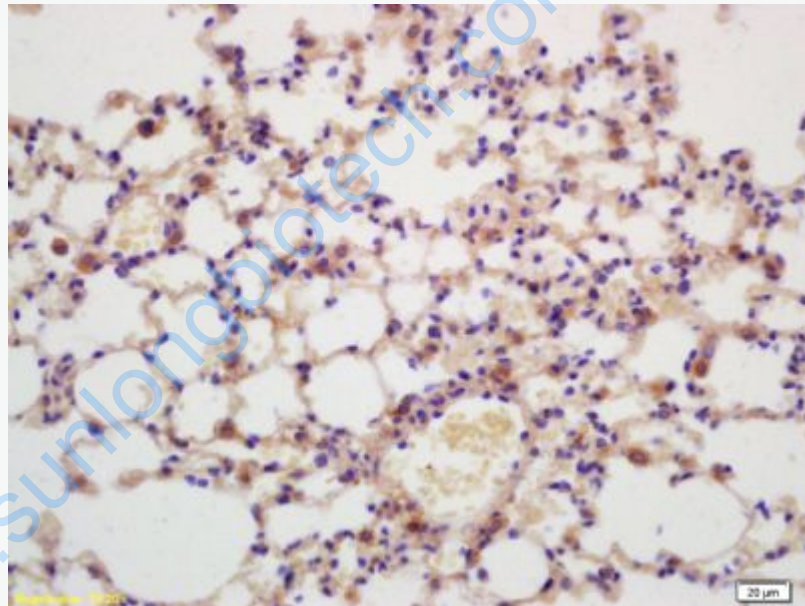
1977年, 美国科学家阿尔弗雷德-戈德曼-吉尔曼(Alfred Goodman

Gilman)发现了G蛋白及其在细胞兴奋传导方面的重要作用。1994年, 吉尔曼因“G蛋白”方面的研究成果而荣获诺贝尔生理及医学奖。

Picture:

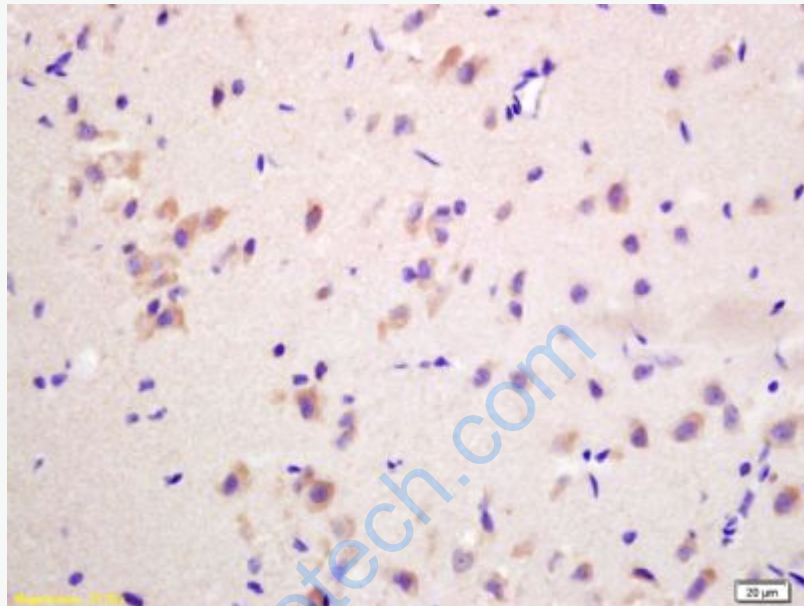


Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GNB1) Polyclonal Antibody, Unconjugated (SL0348R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: mouse lung tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-G protein beta subunit GI Polyclonal Antibody, Unconjugated(SL0348R) 1:200, overnight at 4°C, followed by conjugation to the

secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-G protein beta subunit GI Polyclonal Antibody, Unconjugated(SL0348R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining