

ARG64659 anti-GNAT3 antibody

Package: 100 μg Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes GNAT3
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Dog
Tested Application	IHC-P
Host	Goat
Clonality	Polyclonal
Isotype	lgG
Target Name	GNAT3
Species	Human
Immunogen	C-KNQFLDLNLKKEDKE
Conjugation	Un-conjugated
Alternate Names	GDCA; Guanine nucleotide-binding protein G(t) subunit alpha-3; Gustducin alpha-3 chain

Application Instructions

Application table	Application	Dilution
	IHC-P	3 - 6 μg/ml
Application Note	IHC-P: Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Purified from goat serum by antigen affinity chromatography.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 346562 Human
	Swiss-port # A8MTJ3 Human
Gene Symbol	GNAT3
Gene Full Name	guanine nucleotide binding protein, alpha transducing 3
Function	Guanine nucleotide-binding protein (G protein) alpha subunit playing a prominent role in bitter and sweet taste transduction as well as in umami (monosodium glutamate, monopotassium glutamate, and inosine monophosphate) taste transduction. Transduction by this alpha subunit involves coupling of specific cell-surface receptors with a cGMP-phosphodiesterase; Activation of phosphodiesterase lowers intracellular levels of cAMP and cGMP which may open a cyclic nucleotide-suppressible cation channel leading to influx of calcium, ultimately leading to release of neurotransmitter. Indeed, denatonium and strychnine induce transient reduction in cAMP and cGMP in taste tissue, whereas this decrease is inhibited by GNAT3 antibody. Gustducin heterotrimer transduces response to bitter and sweet compounds via regulation of phosphodiesterase for alpha subunit, as well as via activation of phospholipase C for beta and gamma subunits, with ultimate increase inositol trisphosphate and increase of intracellular Calcium. GNAT3 can functionally couple to taste receptors to transmit intracellular signal: receptor heterodimer TAS1R2/TAS1R3 senses sweetness and TAS1R1/TAS1R3 transduces umami taste, whereas the T2R family GPCRs act as bitter sensors. Functions also as lumenal sugar sensors in the gut to control the expression of the Na+-glucose transporter SGLT1 in response to dietaty sugar, as well as the secretion of Glucagon-like peptide-1, GLP-1 and glucose-dependent insulinotropic polypeptide, GIP. Thus, may modulate the gut capacity to absorb sugars, with implications in malabsorption syndromes and diet-related disorders including diabetes and obesity. [UniProt]
Research Area	Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	40 kDa
PTM	Potential N-myristoylation may anchor alpha-subunit to the inner surface of plasma membrane.

Images



ARG64659 anti-GNAT3 antibody IHC-P image

Immunohistochemistry: paraffin embedded Human Small Intestine. (Steamed antigen retrieval with citrate buffer pH 6) stained with ARG64659 anti-GNAT3 antibody at 3.8 μ g/ml dilution followed by AP-staining.