abcam

Product datasheet

Anti-GNAS antibody ab203194

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Overview

Product name	Anti-GNAS antibody
Description	Rabbit polyclonal to GNAS
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Synthetic peptide within Human GNAS aa 900-1000 conjugated to keyhole limpet haemocyanin. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. from isoform Isoform XLas-1. Database link: **Q5JWF2-1** Run BLAST with Run BLAST with
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Proclin 300 Constituents: 50% Glycerol (glycerin, glycerine), 1% BSA, 48.98% TBS, 1X
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab203194 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Use at 1/50 - 1/200 with fluorescent detection methods.

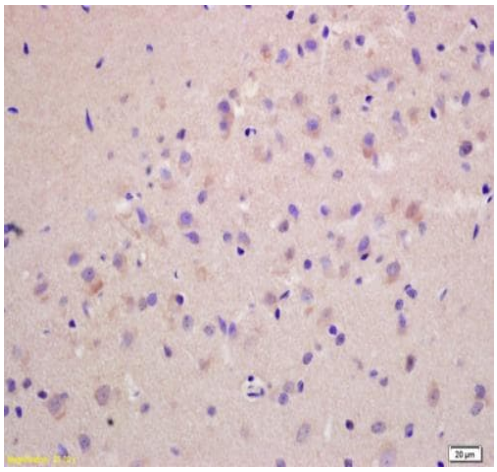
Target

Function Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. The G(s) protein is involved in hormonal regulation of adenylate cyclase: it activates the cyclase in response to beta-adrenergic stimuli.

Involvement in disease Albright hereditary osteodystrophy (AHO) [MIM:103580]: A disorder characterized by short stature, obesity, round facies, brachydactyly and subcutaneous calcification. It is often associated with pseudohypoparathyoidism, hypocalcemia and elevated PTH levels. Note=The disease is caused by mutations affecting the gene represented in this entry.
Pseudohypoparathyroidism 1A (PHP1A) [MIM:103580]: A disorder characterized by end-organ resistance to parathyroid hormone, hypocalcemia and hyperphosphatemia. It is commonly associated with Albright hereditary osteodystrophy whose features are short stature, obesity, round facies, short metacarpals and ectopic calcification. Note=The disease is caused by mutations affecting the gene represented in this entry.
McCune-Albright syndrome (MAS) [MIM:174800]: Characterized by polyostotic fibrous dysplasia, cafe-au-lait lesions, and a variety of endocrine disorders, including precocious puberty, hyperthyroidism, hypercortisolism, growth hormone excess, and hyperprolactinemia. The mutations producing MAS lead to constitutive activation of GS alpha. Note=The disease is caused by mutations affecting the gene represented in this entry.
Growth hormone-secreting pituitary adenoma (GHSPA) [MIM:102200]: Pituitary adenomas include somatotropinoma and prolactinoma. Note=The disease is caused by mutations affecting the gene represented in this entry.
Progressive osseous heteroplasia (POH) [MIM:166350]: Rare autosomal dominant disorder characterized by extensive dermal ossification during childhood, followed by disabling and widespread heterotopic ossification of skeletal muscle and deep connective tissue. Note=The disease is caused by mutations affecting the gene represented in this entry.
ACTH-independent macronodular adrenal hyperplasia (AIMAH) [MIM:219080]: A rare adrenal defect characterized by multiple, bilateral, non-pigmented, benign, adrenocortical nodules. It results in excessive production of cortisol leading to ACTH-independent Cushing syndrome. Clinical manifestations of Cushing syndrome include facial and trunkal obesity, abdominal striae, muscular weakness, osteoporosis, arterial hypertension, diabetes. Note=The disease is caused by mutations affecting the gene represented in this entry.
Pseudohypoparathyroidism 1B (PHP1B) [MIM:603233]: A disorder characterized by end-organ resistance to parathyroid hormone, hypocalcemia and hyperphosphatemia. Patients affected with PHP1B lack developmental defects characteristic of Albright hereditary osteodystrophy, and typically show no other endocrine abnormalities besides resistance to PTH. Note=The disease is caused by mutations affecting the gene represented in this entry. Most affected individuals have defects in methylation of the gene. In some cases microdeletions involving the STX16 appear to cause loss of methylation at exon A/B of GNAS, resulting in PHP1B. Paternal uniparental

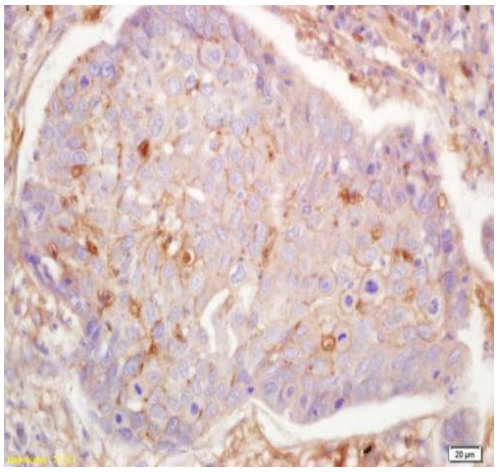
	isodisomy have also been observed. GNAS hyperfunction (GNASHYP) [MIM:139320]: This condition is characterized by increased trauma-related bleeding tendency, prolonged bleeding time, brachydactyly and mental retardation. Both the XLas isoforms and the ALEX protein are mutated which strongly reduces the interaction between them and this may allow unimpeded activation of the XLas isoforms. Note=The disease is caused by mutations affecting the gene represented in this entry. Pseudohypoparathyroidism 1C (PHP1C) [MIM:612462]: A disorder characterized by end-organ resistance to parathyroid hormone, hypocalcemia and hyperphosphatemia. It is commonly associated with Albright hereditary osteodystrophy whose features are short stature, obesity, round facies, short metacarpals and ectopic calcification. Note=The disease is caused by mutations affecting the gene represented in this entry.
Sequence similarities	Belongs to the G-alpha family. G(s) subfamily.
Cellular localization	Cell membrane.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GNAS antibody (ab203194)

Immunohistochemical analysis of formalin-fixed paraffin-embedded rat brain tissue, labeling G protein alpha S using ab203194 at a 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GNAS antibody (ab203194)

Immunohistochemical analysis of formalin-fixed paraffin-embedded Human lung carcinoma tissue, labeling G protein alpha S using ab203194 at a 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.

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