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| Product name: | GNAS Mouse Monoclonal Antibody |
| Cat number: | MABN81467 |
| Conjugate: | Unconjugated |
| Size: | 100µL |
| Clone: | Monoclonal |
| Concentration: | 1mg/ml |
| Host: | Mouse |
| Isotype: | Mouse IgG2a |
| Immunogen: | Purified recombinant fragment of human GNAS (AA: 42-188) expressed in E. Coli. |
| Reactivity: | Human |
| Applications: | IHC 1:200-1:1000,ELISA 1:5000-1:20000,FC 1:200-1:400 |
| Molecular Weight: | 45.7kDa |
| Purification: | Affinity Purification |
| Form: | Liquid |
| Buffer: | Purified antibody in PBS with 0.05% sodium azide |
| Storage: | Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles. |

Background:

This locus has a highly complex imprinted expression pattern. It gives rise to maternally, paternally, and biallelically expressed transcripts that are derived from four alternative promoters and 5' exons. Some transcripts contain a differentially methylated region (DMR) at their 5' exons, and this DMR is commonly found in imprinted genes and correlates with transcript expression. An antisense transcript is produced from an overlapping locus on the opposite strand. One of the transcripts produced from this locus, and the antisense transcript, are paternally expressed noncoding RNAs, and may regulate imprinting in this region. In addition, one of the transcripts contains a second overlapping ORF, which encodes a structurally unrelated protein - Alex. Alternative splicing of downstream exons is also observed, which results in different forms of the stimulatory G-protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular responses. Multiple transcript variants encoding different isoforms have been found for this gene. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseudopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseous heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors. [provided by RefSeq, Aug 2012]