

GNAO1 Protein, Mouse (His)

Cat. No.:	HY-P72207
Synonyms:	Gnao1; Gna0; GnaoGuanine nucleotide-binding protein Go; subunit alpha
Species:	Mouse
Source:	E. coli
Accession:	P18872 (G2-Y354)
Gene ID:	14681
Molecular Weight:	Approximately 44 kDa

PROPERTIES

AA Sequence

G C T L S A E E R A	A L E R S K A I E K	N L K E D G I S A A	K D V K L L L L G A
G E S G K S T I V K	Q M K I I H E D G F	S G E D V K Q Y K P	V V Y S N T I Q S L
A A I V R A M D T L	G V E Y G D K E R K	T D S K M V C D V V	S R M E D T E P F S
A E L L S A M M R L	W G D S G I Q E C F	N R S R E Y Q L N D	S A K Y Y L D S L D
R I G A G D Y Q P T	E Q D I L R T R V K	T T G I V E T H F T	F K N L H F R L F D
V G G Q R S E R K K	W I H C F E D V T A	I I F C V A L S G Y	D Q V L H E D E T T
N R M H E S L M L F	D S I C N N K F F I	D T S I I L F L N K	K D L F G E K I K K
S P L T I C F P E Y	P G S N T Y E D A A	A Y I Q T Q F E S K	N R S P N K E I Y C
H M T C A T D T N N	I Q V V F D A V T D	I I I A N N L R G C	G L Y

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

GNAO1, a member of guanine nucleotide-binding proteins (G proteins), serves as a crucial modulator or transducer in diverse transmembrane signaling systems, although the specific function of the G(o) protein remains unclear. Comprising three units—alpha, beta, and gamma—G proteins play an essential role in mediating cellular responses to extracellular signals. The alpha chain of GNAO1 hosts the guanine nucleotide binding site, a key element in its regulatory activity. GNAO1

forms a complex with GNB1 and GNG3, highlighting the intricate interplay within the G protein structure. Furthermore, GNAO1 is stimulated by RGS14 and interacts with regulatory proteins like RGS19, further elucidating its involvement in finely tuned signal modulation.

Caution: Product has not been fully validated for medical applications. For research use only.

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