Data Sheet (Cat.No.TMAB-06230)

Anti-G protein alpha 16 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Rat (predicted:Mouse,Dog,Pig,Cow,Horse,Rabbit,Sheep)
Molecular Weight:	Theoretical: 44 kDa. Actual: 47 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Tissue/cell: Rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Incubation: Anti-GNA15 Polyclonal Antibody, Unconjugated (TMAB-06230) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining 2. Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (GNA15) Polyclonal Antibody, Unconjugated (TMAB-06230) at 1:500 overnight at 4°C, followed by a conjugated secondary for 20 minutes and DAB staining. 3. Sample: Mcf-7 (Human) Cell Lysate at 40 µg Primary: Anti-G protein alpha 16 (TMAB-06230) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 44 kD Observed band size: 47 kD
Application:	WB,IHC-P,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human G protein alpha 16
Antigen Species:	Human
Gene ID:	2769
Uniprot ID:	P30679

Research Background

Heterotrimeric G proteins function to relay information from cell surface receptors to intracellular effectors (1). Each of a very broad range of receptors specifically detects an extracellular stimulus (a photon, pheromone, odorant, hormone or neurotransmitter) while the effectors (i.e., adenylyl cyclase), which act to generate one or more

intracellular messengers, are less numerous. In mammals, G protein alpha, Beta and Gamma polypeptides are encoded by at least 16, 4 and 7 genes, respectively (2-5). Most interest in G proteins has been focused on their a subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four distinct classes of G alpha subunits have been identified; these include Gs, Gi, Gq and Ga 12/13 (3,4). The Gi class comprises all the known a subunits that are susceptible to pertussis toxin modifications, including Ga i-1, Ga i-2, Ga i-3, Ga o, Ga t1, Ga t2, Ga z and Ga gust (4). Of these, the three Ga i subtypes function to open atrial potassium channels (6). Ga 16 is a member of the Gq subfamily and is expressed specifically in hematopoietic cells (7).

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