G-Biosciences Image not found or type unknown

Immunotag™ Glycogen Synthase 1 Monoclonal Antibody

Antibody Specification

Catalog No.	ITM0310
Product Description	Immunotag™ Glycogen Synthase 1 Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Glycogen Synthase 1
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,FCM,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant fragment of human Glycogen Synthase 1 expressed in E. Coli.
Specificity	Glycogen Synthase 1 Monoclonal Antibody detects endogenous levels of Glycogen Synthase 1 protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	GYS1
Accession No.	P13807 Q9Z1E4
Alternate Names	GYS1; GYS; Glycogen [starch] synthase; muscle
Description	glycogen synthase 1(GYS1) Homo sapiens The protein encoded by this gene catalyzes the addition of glucose monomers to the growing glycogen molecule through the formation of alpha-1,4-glycoside linkages. Mutations in this gene are associated with muscle glycogen storage disease. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009],

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Cell Pathway/ Category	Starch and sucrose metabolism,Insulin_Receptor,
Protein Expression	Endometrium,Heart,Kidney,Lymph,Muscle,Skin,
Subcellular Localization	cytosol,membrane,inclusion body,
Protein Function	catalytic activity:UDP-glucose ((1->4)-alpha-D-glucosyl)(n) = UDP + ((1->4)-alpha-D-glucosyl)(n+1).,disease:Defects in GYS1 are the cause of muscle glycogen storage disease type 0 (GSD0b) [MIM:611556]; also called muscle glycogen synthase deficiency. GSD0 is a metabolic disorder characterized by fasting hypoglycemia presenting in infancy or early childhood. The role of muscle glycogen is to provide critical energy during bursts of activity and sustained muscle work.,enzyme regulation:Allosteric activation by glucose-6-phosphate. Phosphorylation reduces the activity towards UDP-glucose. When in the non-phosphorylated state, glycogen synthase does not require glucose-6-phosphate as an allosteric activator; when phosphorylated it does.,function:Transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan.,pathway:Glycan biosynthesis; glycogen biosynthesis.,similarity:Belongs to the glycosyltransferase 3 family.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.