Datasheet for ABIN5557475

anti-Glycogen Synthase 1 antibody (pSer641)

3 Images

Go to Product page

Overview

Quantity:	100 µL
Target:	Glycogen Synthase 1 (GYS1)
Binding Specificity:	pSer641
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This Glycogen Synthase 1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc))

Product Details

Immunogen:	Synthetic peptide derived from human Glycogen synthase 1(S641), around 630-680aa (phospho S641).
Clone:	10C1
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein A.

Target Details

Target:	Glycogen Synthase 1 (GYS1)

Target Details

Alternative Name:	Glycogen synthase 1 (GYS1 Products)
Background:	Synonyms: Glycogen synthase 1 phospho S640, Glycogen synthase 1 phospho Ser640, p-Glycogen synthase 1 S640, Glycogen synthase 1 muscle, Glycogen synthase 1, GSY, GYS, GYS1, EC 2.4.1.11, Glycogen synthase1, GYS 1, Starchsynthase muscle, UDP glucose glycogen glucosyltransferase, GYS1_HUMAN, Glycogen [starch] synthase, muscl. Background: Glycogen Synthase (GS) is a key enzyme in the regulation of glycogen metabolism. GS catalyzes the incorporation of UDP-glucose incorporation into glycogen. The activity of glycogen synthase is regulated by hormonal stimuli (insulin, catecholamines and glucagons) and non-hormonal stimuli (blood glucose level and exercise). Two main isoforms of mammalian GS are designated as muscle (glycogen synthase 1) and liver (glycogen synthase 2). Most tissues express glycogen synthase 1, whereas glycogen synthase 2 appears to be tissue-specific. The two isoforms have 70 % identical amino acid sequence. Glycogen synthase can be phosphorylated by multiple kinases including glycogen synthase kinase-3 (GSK-3), mitogen-activated protein kinase-related protein kinase (DYRK), and SAPK2b/p38b which leads to its inactivation.
Gene ID:	2997
UniProt:	P13807
Pathways:	PI3K-Akt Signaling, AMPK Signaling, Cellular Glucan Metabolic Process

Application Details

Application Notes:	WB 1:300-5000 IHC-P 1:200-400 IF(ICC) 1:50-200
Restrictions:	For Research Use only

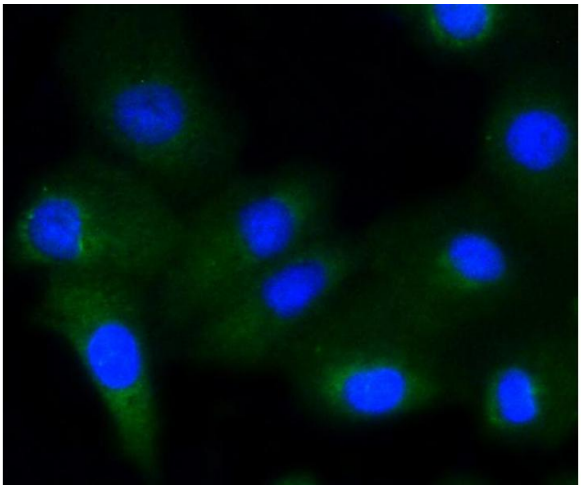
Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	Aqueous buffered solution containing 1xTBS (pH 7.4), 1 % BSA, 40 %Glycerol and 0.05 % Sodium Azide.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be

Handling

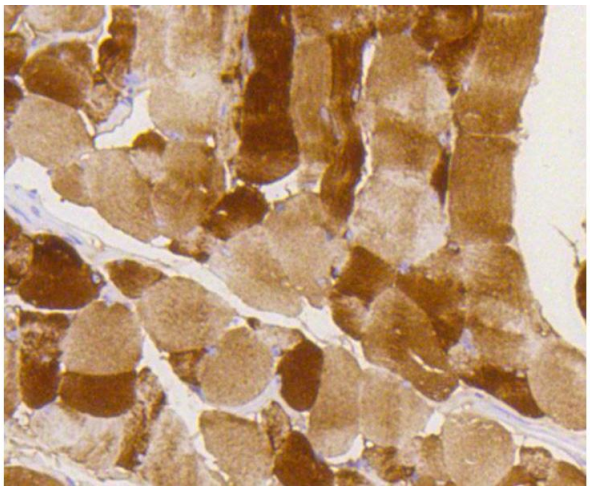
	handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Images



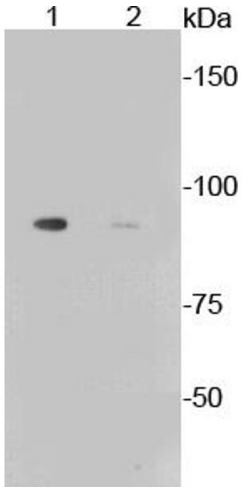
Immunofluorescence (Cultured Cells)

Image 1. A549 cells were stained with Glycogen synthase 1(S641) (10C1) Monoclonal Antibody at 1:200 followed by secondary antibody incubation, DAPI staining of the nuclei and detection.



Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Paraformaldehyde-fixed, paraffin embedded mouse skeletal muscle, Antigen retrieval by boiling in sodium citrate buffer (pH6) for 15min, Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes, Blocking buffer at 37°C for 20min, Antibody incubation with Glycogen synthase 1(S641) (10C1) Monoclonal Antibody at 1:50 overnight at 4°C, followed by a conjugated secondary and DAB staining.



Western Blotting

Image 3. Lane 1: Aphidicolin treated Mouse liver lysates, Lane 2: Untreated Mouse Liver lysates probed with Glycogen synthase 1(S641) (10C1) Monoclonal Antibody at 1:1000.