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Datasheet for ABIN1714645
anti-Glycogen Synthase 1 antibody (pSer645)

Overview

Quantity:	100 µL
Target:	Glycogen Synthase 1 (GYS1)
Binding Specificity:	pSer645
Reactivity:	Rat, Dog
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Glycogen Synthase 1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic phosphopeptide derived from human Glycogen synthase 1 around the phosphorylation site of Ser645
Isotype:	IgG
Cross-Reactivity:	Dog, Rat
Predicted Reactivity:	Human, Mouse, Sheep, Pig, Horse
Purification:	Purified by Protein A.

Target Details

Target: Glycogen Synthase 1 (GYS1)

Alternative Name: Glycogen synthase 1 ([GYS1 Products](#))

Background: Synonyms: Glycogen synthase 1 phospho S645, Glycogen synthase 1 phospho Ser645, p-Glycogen synthase 1 S645, 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.

Pathways: [PI3K-Akt Signaling](#), [AMPK Signaling](#), [Cellular Glucan Metabolic Process](#)

Application Details

Application Notes: WB 1:300-5000
ELISA 1:500-1000
IHC-P 1:200-400
IHC-F 1:100-500
IF(IHC-P) 1:50-200
IF(IHC-F) 1:50-200
IF(ICC) 1:50-200
ICC 1:100-500

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Handling

Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be 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