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Rabbit Anti-Glycogenin 1 antibody

SL13447R

Product Name:	Glycogenin 1
Chinese Name:	糖原蛋白1
Alias:	Glycogenin; Glycogenin-1; Glycogenin1; GLYG_HUMAN; GN-1; GN1; GYG 1; GYG; GYG1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	39kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Glycogenin 1:251-350/350
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Glycogen synthesis is initiated by the autoglucosylation of Glycogenin-1. Specifically, Glycogenin-1 glucosylates itself to begin the synthesis of glycogen in mammalian skeletal muscle. It acts as the primer to which further glucose monomers may be added. All of the Glycogenin-1 molecules contain at least one glucosyl residue before autoglucosylation begins. The first step of the glycogen synthesis occurs when a glucose molecule from UDP-glucose binds to the hydroxyl group of Tyr 194 on the

Glycogenin-1 molecule. Using its glucosyltransferase activity, Glycogenin-1 adds more glucoses, each one coming from UDP-glucose. The glycosylation process reaches a plateau when five new glucose residues have been added, at which point glycogen synthase (GS) takes over and further elongates the chain. Glycogenin-1 remains covalently attached to the reducing end of the glycogen molecule.

Function:
Self-glucosylates, via an inter-subunit mechanism, to form an oligosaccharide primer that serves as substrate for glycogen synthase.

Subunit:
Homodimer tightly complexed to the 86 kDa catalytic subunit of glycogen synthase GYS1.

Post-translational modifications:
Self-glycosylated by the transfer of glucose residues from UDP-glucose to itself, forming an alpha-1,4-glycan of around 10 residues attached to Tyr-195. Phosphorylated.

DISEASE:
Defects in GYG1 are the cause of glycogen storage disease type 15 (GSD15) [MIM:613507]. It is a metabolic disorder resulting in muscle weakness, associated with the glycogen depletion in skeletal muscle, and cardiac arrhythmia, associated with the accumulation of abnormal storage material in the heart. The skeletal muscle shows a marked predominance of slow-twitch, oxidative muscle fibers and mitochondrial proliferation.

Similarity:
Belongs to the glycogenin family.

SWISS:
P46976

Gene ID:
2992

Database links:

Entrez Gene: 2992Human

Omim: 603942Human

SwissProt: P46976Human

Unigene: 477892Human

	Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.