
Product Data Sheet

Product Name: GYG1 Human
 Cat. No.: GP21762
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glycogenin-1; GYG1; GYG.		
Amino Acid Sequence	MHHHHHHMAS MTGGQQMGRD LYDDDDKDRW GSMTDQAFVT LTTNDAYAKG ALVLGSSLKQ HRTTRRLVVL ATPQVSDSMR KVLETVFDEV IMVDVLDSDG SAHLTLMKRP ELGVTCLKH CWSLTQYSKC VFMDADTLVL ANIDDLFDRE ELSAAPDPGW PDCFNSGVFV YQPSVETYNQ LLHLASEQGS FDGGDQGILN TFFSSWATTD IRKHLPIYN LSSISIYSYL PAFKVFASGA KVVHFLGRVK PWNITYDPKT KSVKSEAHPD NMTHPEFLIL WWNIFTTNVL PLLQQFGLVK DTCSYVNVED VSGAISHLSL GEIPAMAQPF VSSEERKERW EQGQADYMGA DSFDNIKRKL DTYLQ.		
Formulation	The GYG1 solution contains 20mM Tris-HCl buffer (pH 8.0), 1mM DTT and 10% glycerol.		

Introduction

Glycogenin-1 (GYG1) is an enzyme involved in glycogen biosynthesis. GYG1 is the chief enzyme involved in glycogen polymerisation. Glycogenin-1 is vital for the function of self-glucosylates, using an inter-subunit mechanism, to form an oligosaccharide primer which acts as substrate for glycogen synthase. In addition, GYG1 has a role in regulating glycogen metabolism and the achievement of maximal glycogen levels in skeletal muscle. GYG1 mRNA and protein content and activity increase in the muscle during recovery from prolonged and exhaustive exercise. GYG1 is inactivated with glycogen catabolism which concurs with an increase in glycogenin gene expression as exercise and glycogenolysis advance. Glycogenin will remain covalently attached to the reducing end of the glycogen molecule.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GYG1 Human Recombinant fused with a 32 amino acid His-T7 tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 365 amino acids (1-333 a.a.) and having a molecular mass of 41.2kDa. The GYG1 is purified by proprietary chromatographic techniques.

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