Product Data Sheet

Product Name:	DAG1 Human
Cat. No.:	GP23290
Batch No.:	1

Product Data

Purity	>98%	Source	Escherichia Coli.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Dystroglycan; Dystrophin-associated glycoprotein 1; DAG1; A3a; DAG; AGRNR; 156DAG; MDDGC7; MDDGC9.		
Amino Acid Sequence	MKHHHHHHHASHWPSEPSEAV RDWENQLEAS MHSVLSDLHE AVPTVVGIPD GTAVVGRSFR VTIPTDLIAS SGDIIKVSAA GKEALPSWLH WDSQSHTLEG LPLDTDKGVH YISVSATRLG ANGSHIPQTS SVFSIEVYPE DHSELQSVRT ASPDPGEVVS SACAADEPVT VLTVILDADL TKMTPKQRID LLHRMRSFSE VELHNMKLVP VVNNRLFDMS AFMAGPGNAK KVVENGALLS WKLGCSLNQN SVPDIHGVEA PAREGAMSAQ LGYPVVGWHI ANKKPPLPKR VRR.		
Solubility	It is recommended to add 200?l deionized water to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. DAG1 is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.		
Formulation	DAG1 filtered (0.4 μm) and lyophilized from 0.5mg/ml in 0.05M phosphate buffer and 0.075M NaCl, pH 7.4.		

Introduction

Dystroglycan 1 (DAG1) is a laminin binding component of the dystrophin-glycoprotein complex which provides a connection between the subsarcolemmal cytoskeleton and the extracellular matrix. The N-terminal domain of alpha-dystroglycan is secreted into the cerebrospinal fluid. The effect of DAG1 on the nervous system remains vague. The complete dystroglycan complex is expressed in a various tissues and has a role in processes such as laminin and basement membrane assembly, sarcolemmal stability, cell survival, peripheral nerve myelination, nodal structure, cell migration, and epithelial polarization. DAG1 is a candidate gene for the site of the mutation in autosomal recessive muscular dystrophies. The dramatic decrease of DAG1 in Duchenne muscular

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

dystrophy leads to a loss of linkage between the sarcolemma and extracellular matrix, making muscle fibers more susceptible to necrosis.

Stability

Store lyophilized protein at -20°C . Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C .

Background

DAG1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain (a.a 30-312) containing 293 amino acids including a 10 a.a N-terminal His tag. The total molecular mass is 31.87kDa (calculated).

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