
Product Data Sheet

Product Name: SAR1A Human
 Cat. No.: GP24490
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	GTP-binding protein SAR1a; COPII-associated small GTPase; SAR1A; SAR1; SARA; SARA1.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MSFIFEWIYN GFSSVLQFLG LYKKSGKLVF LGLDNAGKTT LLHMLKDDRL GQHVPTLHPT SEELTIAGMT FTTFDLGGHE QARRVWKNYL PAINGIVFLV DCADHSRLVE SKVELNALMT DETISNVPIL ILGNKIDRTD AISEEKLREI FGLYGQTTGK GNVTLKELNA RPMEVFMCSV LKRQGYGEGF RWLSQYID.		
Formulation	The SAR1A solution contains 20mM Tris-HCl buffer (pH8.0), 1mM DTT and 10% glycerol.		

Introduction

SAR1A is a member of the small GTPase superfamily. SAR1A is a vital component of COPII vesicle coats involved in export of cargo from the ER (Endoplasmic Reticulum). The GTPase activity of SAR1A serves as a molecular switch to control protein-protein and protein-lipid interactions which dictate vesicle budding from the ER. SAR1A, while GDP-bound interacts with the membrane-bound exchange factor Sec12 and trades its bound GDP for GTP. SAR1A is also involved in the transport from the ER to the Golgi apparatus. SAR1A is required to maintain SEC16A localization at distinct locations on the ER membrane possibly by preventing its dissociation. SAR1A-GTP-dependent compilation of SEC16A on the ER membrane creates a structured scaffold defining endoplasmic reticulum exit sites.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

SAR1A Human Recombinant fused with 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 218 amino acids (1-198 a.a.) and having a molecular mass of 24.5kDa. The SAR1A is purified by proprietary chromatographic techniques.

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