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**Product Data Sheet**


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Product Name: GM2A Human  
 Cat. No.: GP23568  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Ganglioside GM2 activator; Cerebroside sulfate activator protein; GM2-AP; Sphingolipid activator protein 3; SAP-3; GM2A.		
Amino Acid Sequence	MKHHHHHHAS FSWDNCDEGK DPAVIRSLTL EPDPIIVPGN VTLSVMGSTS VPLSSPLKVD LVLEKEVAGL WIKIPCTDYI GSCTFEHFCD VLDMLIPTGE PCPEPLRTYG LPCHCPFKEG TYSLPKSEFV VPDLELPSWL TTGNRYRIESV LSSSGKRLGC IKIAASLKGI.		
Solubility	It is recommended to add deionized water to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. GM2A is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.		
Formulation	GM2A filtered (0.4 μm) and lyophilized from 0.5mg/ml in 0.05M Tris buffer and 0.1M NaCl, pH-8.0.		

**Introduction**

Ganglioside GM2 activator (GM2A) is a small glycolipid transport protein which functions as a substrate specific co-factor for the lysosomal enzyme beta-hexosaminidase A. GM2A participates in lipid metabolism. GM2A protein is localized in lysosomes. The GM2A protein forms a large binding pocket for a number of single chain phospholipids and fatty acids. GM2A demonstrates calcium-independent phospholipase activity. GM2A stimulates ganglioside GM2 degradation by presenting GM2 to beta-hexosaminidase A. The Beta-hexosaminidase A, along with GM2A, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. GM2A gene mutations result in GM2-gangliosidosis type AB or the AB variant of Tay-Sachs disease.

**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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### 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

GM2A Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain (a.a 33-193) containing 170 amino acids including a 9 a.a N-terminal His tag. The total molecular mass is 18.7kDa (calculated).

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