

## Human GM2A Protein (C-His)

|                           |                                 |
|---------------------------|---------------------------------|
| <b>Catalog Number:</b>    | 601401, 601402                  |
| <b>Size:</b>              | 25 ug, 100 ug                   |
| <b>Target Name:</b>       | GM2A, Ganglioside GM2 activator |
| <b>Regulatory Status:</b> | RUO                             |

### PRODUCT DETAILS

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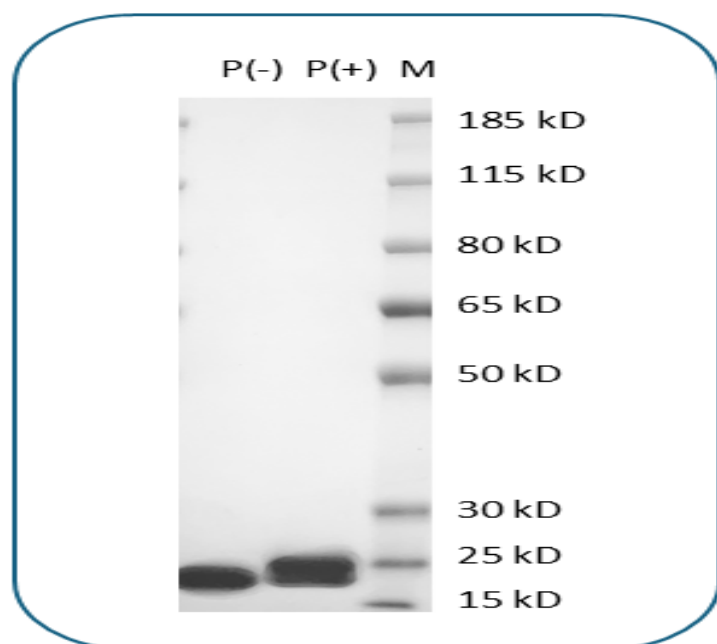
|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application:</b>           | ELISA, BLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Format:</b>                | Liquid, Purified                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Expression Host:</b>       | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species:</b>               | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Accession Number:</b>      | P17900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Sources:</b>               | Recombinant human GM2A ( His24-Ile193) with C-terminus His tag was expressed in 293 Cells                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Weight:</b>      | This protein has a predicted molecular weight of 20 kDa. Under DTT-reducing conditions, the protein migrates at approximately 24 kDa on SDS-PAGE.                                                                                                                                                                                                                                                                                                                                            |
| <b>Affinity Tag:</b>          | C-His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Purity:</b>                | >95% based on SDS-PAGE under reducing condition                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Formulation:</b>           | 1xPBS with 300mM NaCl, pH7.4, 0.22 µm filtered                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Endotoxin level:</b>       | Not tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Concentration:</b> | 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage and Handling:</b>  | Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability. |

### BACKGROUND INFORMATION

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GM2 ganglioside activator (GM2A) is a lipid transfer protein of the ML domain family that facilitates the degradation of ganglioside GM2 by acting as a substrate-specific cofactor for  $\beta$ -hexosaminidase A. GM2A extracts GM2 from membranes and presents it in soluble form to  $\beta$ -hexosaminidase A for cleavage, enabling conversion to GM3. It can bind several single-chain phospholipids and fatty acids and shows some calcium-independent phospholipase activity. Mutations in GM2A cause GM2-gangliosidosis type AB, a Tay-Sachs disease variant characterized by impaired GM2 degradation and lipid accumulation.

## PRODUCT DATA



Purified Human GM2A (His24-Ile193, with C-terminus His tag, 293 expressed) final product on SDS-PAGE under reducing (P+) conditions. The purity of Human GM2A appears to be greater than 95%.

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