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Product Information

SILu™Carb Glycan Standard
^{13}C Biantennary G2A1(6)F Sial(Alpha-2,6)
^{13}C labeled mono-sialylated, galactosylated biantennary, core-substituted with fucose,
Powered by Asparia Glycomics

Catalog Number **IL2A16FS26**
Storage temperature 2–8 °C

Synonyms: A1F, G2FS1, FA2G2S1, F(6)A2G2S1, G2A1(6)F

Product Description
SILu™Carb standards are synthetic ^{13}C-labeled N-glycans, produced for use as internal standards in absolute glycan quantification by mass spectrometry. They are available as single standards or in kit form including quantification software and all reagents and consumables required for glycan analysis.

Advantages of SILu™Carb standards:
- Label-free glycan quantification by MS
- Absolute quantification of individual glycans in complex mixtures (e.g. glycan biomarkers)
- No external calibration required, use as internal standard due to stable isotope enrichment
- Standards are quantified by qNMR
- Custom-made software for rapid automated quantification available
- Stable isotope enrichment in glycan core and antennae for fragment quantification
- Degree of isotopic enrichment can be tuned during synthesis
- Standards provided as single isomers, no isobaric mixtures
- Fully synthetic and characterized by NMR, HPLC and MS, high purity (>95%)
- Custom synthesis of standards offered
- Compatible with labeling by reductive amination, permethylation, and sialic acid derivatization.

Application
N-Glycan labeled with ^{13}C, for use as a quantitative standard in applications such as Matrix-assisted Laser Desorption Ionization-time-of-flight (MALDI-TOF), Electrospray Ionization (ESI) and Liquid Chromatography Mass Spectrometry (LC-MS).

- Measure serum glycan levels as disease markers by MS
- Quantify absolute and relative glycosylation in biopharmaceutical development and quality control
- Glycan biomarker discovery by MALDI (cross-quantification)
- Increase reproducibility in lab-to-lab method transfer (internal calibration standard)
- De-convolute and quantify co-eluting peaks in LC-MS
- Quantify glycan recovery after sample preparation
- Protein characterization.

SILu™Carb standards are provided as quantified (qNMR) aqueous solutions (20 μM) in two formats of 600 pmol (3 × 200 pmol) and 2,000 pmol (10 × 200 pmol).

Sample volume: 30 μL for 600 pmol and 100 μL for 2,000 pmol.

^{13}C- isotopic purity: 99.1%.

Purity: 98% (UPLC-FLD after 2-AB labelling).

Mass: 2085.7723

Precautions and Disclaimer
For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Stored at 2–8 °C SILu™Carb standards are stable >1 year without significant loss of purity.

Procedure
Centrifuge the vial at 1,000 × *g* for 1 minute before opening. (To dislodge any material that may be dispersed on the wall or cap of the vial).

Add 10 µL of the labeled glycan standard (200 pmol) to the glycan mixture and re-cap the vial immediately.

For MALDI application, it is recommended to add any Na^+ ion rich reagent or K^+ suppression reagent such as NaOH or sodium citrate to avoid glycan K^+ adducts in the MALDI spectra.

Note: In order to obtain best results in different techniques and preparations, it is recommended researchers determine the optimal working concentration in their application

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