Product Information

2-deoxy-2-fluoro L-Fucose
Item No. 17171

CAS Registry No.: 70763-62-1
Formal Name: 2,6-dideoxy-2-fluoro-L-galactose
MF: C₆H₁₁FO₄
FW: 166.1
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that 2-deoxy-2-fluoro L-fucose be stored as supplied at -20°C. It should be stable for at least two years.
2-deoxy-2-fluoro L-Fucose is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-deoxy-2-fluoro L-fucose in the solvent of choice. 2-deoxy-2-fluoro L-Fucose is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 2-deoxy-2-fluoro L-fucose in these solvents is approximately 0.25, 30, and 20 mg/ml, respectively.
Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiologic effects at low concentrations. Organic solvent-free aqueous solutions of 2-deoxy-2-fluoro L-fucose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 2-deoxy-2-fluoro L-fucose in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.
Fucose (Item No. 16479) is a deoxysugars that is present in many organisms. Fucose-containing glycans, generated by fucosyltransferase using GDP-fucose, have roles in cell signaling, cell-cell interactions, and blood properties.1 2-deoxy-2-fluoro L-Fucose is a fluorinated fucose analog. It can be metabolized inside the cell to a substrate-based inhibitor of fucosyltransferases.2 Alternatively, it can be converted in vitro to GDP-2-deoxy-2-fluoro L-fucose, a competitive inhibitor of α1,3-fucosyltransferase V (Kᵢ = 4.2 µM).3

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/17171

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery. Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence. Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.