Proteins

Product Data Sheet

3-Fucosyllactose

Cat. No.: HY-N10528 CAS No.: 41312-47-4 Molecular Formula: $C_{18}H_{32}O_{15}$

Molecular Weight: 488.44

Bacterial; Enterovirus Target:

Pathway: Anti-infection

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

In Vitro

H₂O: 125 mg/mL (255.92 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0473 mL	10.2367 mL	20.4733 mL
	5 mM	0.4095 mL	2.0473 mL	4.0947 mL
	10 mM	0.2047 mL	1.0237 mL	2.0473 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description	3-Fucosyllactose (3-Fucosyl-D-lactose) is one of the major fucosylated oligosaccharides found in human breast milk. 3-Fucosyllactose shows prebiotic, immunomodulator, neonatal brain development, and antimicrobial function $^{[1]}$.
In Vitro	3-Fucosyllactose (3-Fucosyl-D-lactose) (10 mg/mL) can inhibit the adhesion of enteric and respiratory pathogens to the human epithelial cell lines Caco-2 and A549 ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Choi YH, et al. Biosynthesis of the human milk oligosaccharide 3-fucosyllactose in metabolically engineered Escherichia coli via the salvage pathway through increasing GTP synthesis and β -galactosidase modification. Biotechnol Bioeng. 2019 Dec;116(12):3324-3332.

[2]. Weichert S, et al. Bioengineered 2'-fucosyllactose and 3-fucosyllactose inhibit the adhesion of Pseudomonas aeruginosa and enteric pathogens to human intestinal and respiratory cell lines. Nutr Res. 2013 Oct;33(10):831-8.

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 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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