



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

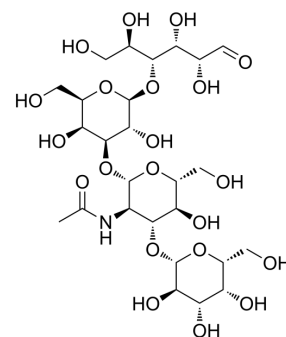
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Lacto-N-tetraose

Cat. No.:	HY-N9448
CAS No.:	14116-68-8
Molecular Formula:	C ₂₆ H ₄₅ NO ₂₁
Molecular Weight:	707.63
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Lacto-N-tetraose is the significant core structure of human milk oligosaccharides (HMOs) naturally existing in human milk. Lacto-N-tetraose is consist of galactose, N-acetylglucosamine, and glucose moieties. Lacto-N-tetraose has prebiotic effect, immune regulatory effect, anti-inflammatory effects, intestinal cell responses regulatory effect, antibacterial activity and antiviral activity. Lacto-N-tetraose has been widely added to infant formula ^[1] .								
In Vitro	HMOs exhibits antimicrobial and antibiofilm activity against Streptococcus agalactiae, antibiofilm activity against Methicillin -resistant Staphylococcus aureus (MRSA), and antimicrobial activity against both Acinetobacter baumannii and Clostridium difficile ^[2] . Lacto-N-tetraose (500-2000 µg/mL) does not cause clastogenic or aneugenic signs in human peripheral blood lymphocytes, nor increase the percentage of micronucleated cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	Lacto-N-tetraose (1000-4000 mg/kg; p.o.; daily for 90 days) does not show toxicity in neonatal SD rats ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Female neonatal SD rats (housed together with dam until weaning after 21 days)^[3]</td> </tr> <tr> <td>Dosage:</td> <td>1000, 25000 and 4000 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>p.o.; daily for 90 days</td> </tr> <tr> <td>Result:</td> <td>Did not show toxicity on clinical observations, body weight, food consumption, development and maturation, clinical pathology, organ weights or histopathology.</td> </tr> </table>	Animal Model:	Female neonatal SD rats (housed together with dam until weaning after 21 days) ^[3]	Dosage:	1000, 25000 and 4000 mg/kg	Administration:	p.o.; daily for 90 days	Result:	Did not show toxicity on clinical observations, body weight, food consumption, development and maturation, clinical pathology, organ weights or histopathology.
Animal Model:	Female neonatal SD rats (housed together with dam until weaning after 21 days) ^[3]								
Dosage:	1000, 25000 and 4000 mg/kg								
Administration:	p.o.; daily for 90 days								
Result:	Did not show toxicity on clinical observations, body weight, food consumption, development and maturation, clinical pathology, organ weights or histopathology.								

REFERENCES

- [1]. Zhu Y, et al. Physiological effects, biosynthesis, and derivatization of key human milk tetrasaccharides, lacto-N-tetraose, and lacto-N-neotetraose. Crit Rev Biotechnol. 2022 Jun;42(4):578-596.
- [2]. Craft KM, Thomas HC, Townsend SD. Sialylated variants of lacto-N-tetraose exhibit antimicrobial activity against Group B Streptococcus. Org Biomol Chem. 2019 Feb 13;17(7):1893-1900.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA