



# SZABO SCANDIC

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## Produktinformation



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# PRODUCT INFORMATION



## LgtD (*H. influenzae* F3031, recombinant)

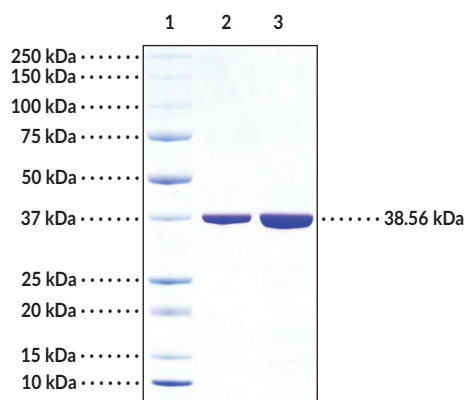
Item No. 42251

### Overview and Properties

<b>Synonyms:</b>	$\beta$ -1,3-N-Acetylgalactosaminyltransferase, UDP-GlcNAc Lipooligosaccharide N-Acetylglucosamine Glycosyltransferase
<b>Source:</b>	Active recombinant <i>H. influenzae</i> N-terminal His-tagged LgtD expressed in <i>E. coli</i>
<b>Amino Acids:</b>	1-323
<b>Uniprot No.:</b>	E7A4Y7
<b>Molecular Weight:</b>	38.56 kDa
<b>Storage:</b>	-80°C (as supplied)
<b>Stability:</b>	$\geq 1$ year
<b>Purity:</b>	$\geq 90\%$ estimated by SDS-PAGE
<b>Supplied in:</b>	50 mM Tris-HCl, pH 7.5, with 50 mM sodium chloride, and 5 mM DTT
<b>Protein Concentration:</b>	<i>batch specific</i> mg/ml
<b>Activity:</b>	<i>batch specific</i> U/ml
<b>Specific Activity:</b>	<i>batch specific</i> U/mg
<b>Unit Definition:</b>	One unit is defined as the amount of LgtD enzyme require to produce 1 $\mu$ mol of globotetraose (Gb4) from globotriose (Gb3) per minute at pH 7.5 and 32°C in the presence of 4.5 mM of UDP-N-acetyl-D-Galactosamine (UDP-GalNAc).

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

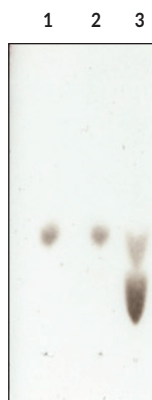
### Images



Lane 1: MW Markers  
Lane 2: LgtD (2  $\mu$ g)  
Lane 3: LgtD (4  $\mu$ g)

SDS-PAGE Analysis of LgtD.

Representative gel image shown; actual purity may vary between each batch.



Lane 1: Gb3 (Substrate control)  
Lane 2: Gb3 and UDP-GalNAc (No enzyme control)  
Lane 3: Assay for 30 minutes

TLC analysis of globotriose (Gb3) conversion using LgtD enzyme.

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. 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  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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# PRODUCT INFORMATION



## Description

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Lipopolysaccharyl  $\beta$ -1,3-N-acetylgalactosaminyltransferase (LgtD) is an inverting N-acetylgalactosaminyltransferase and a member of glycosyltransferase family 2 (GT2) that is found in *H. influenzae*.<sup>1,2</sup> A similar protein, lipopolysaccharide  $\alpha$ -1,4-galactosyltransferase (LgtC) that is found in *N. meningitidis*, is composed of an N-terminal mixed  $\alpha/\beta$  domain, which contains the active site, and a C-terminal helical domain, which is responsible for attachment to cell membranes.<sup>3,4</sup> LgtD transfers an N-acetylgalactosamine from UDP-N-acetylgalactosamine (UDP-GalNAc) onto globotriose in the biosynthesis of the glycosphingolipid antigen globohexasaccharide (globoH) or globotetraose-containing LPS.<sup>5,6</sup> Cayman's LgtD (*H. influenzae* F3031, recombinant) protein can be used for enzyme activity assays.

## References

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3. Chang, K.H., Park, J.H., Chung, H.Y., *et al.* Enhanced expression of recombinant human cyclooxygenase 1 from stably-transfected *Drosophila melanogaster* S2 cells by dimethyl sulfoxide is mediated by up-regulation of nitric oxide synthase and transcription factor Kr-h1. *Biotechnol. Lett.* **34**(7), 1243-1250 (2012).
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