# PRODUCT INFORMATION

## Benzyl-2-acetamido-2-deoxy-α-D-galactopyranoside

*Item No. 31747*

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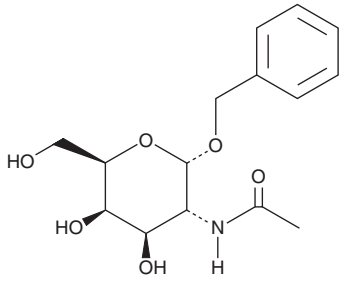
| **CAS Registry No.:** | 3554-93-6 |
| **Formal Name:** | phenylmethyl 2-(acetylamino)-2-deoxy-α-D-galactopyranoside |
| **Synonyms:** | Benzyl N-acetyl-α-D-galactosaminide, Benzyl-α-GalNAc |
| **MF:** | $C_{15}H_{21}NO_6$ |
| **FW:** | 311.3 |
| **Purity:** | ≥95% |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




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

### Laboratory Procedures

Benzyl-2-acetamido-2-deoxy-α-D-galactopyranoside is supplied as a crystalline solid. A stock solution may be made by dissolving the benzyl-2-acetamido-2-deoxy-α-D-galactopyranoside in the solvent of choice, which should be purged with an inert gas. Benzyl-2-acetamido-2-deoxy-α-D-galactopyranoside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of benzyl-2-acetamido-2-deoxy-α-D-galactopyranoside in these solvents is approximately 1 and 10 mg/ml, respectively.

### Description

Benzyl-2-acetamido-2-deoxy-α-D-galactopyranoside (benzyl-α-GalNAc) is an inhibitor of mucin synthesis.[1-3] It inhibits glucosamine labeling, a marker of mucin synthesis, in Caco-2, HT-29, and T84 colon cancer cells when used at a concentration of 2 mM.[1] Benzyl-α-GalNAc (0.4, 0.6, and 0.8 mg/ml) enhances cell death induced by 5-fluorouracil (Item No. 14416) in Capan-1 and HPAF-II cells.[2] LS 174T colon cancer cells grown in the presence of benzyl-α-GalNAc exhibit reduced liver metastasis in a mouse xenograft model compared with control LS 174T cells.[3]

### References


1. Niv, Y., Byrd, J.C., Ho, S.B., *et al.* Mucin synthesis and secretion in relation to spontaneous differentiation of colon cancer cells *in vitro*. *Int. J. Cancer* **50(1)**, 147-152 (1992).
2. Kalra, A.V. and Campbell, R.B. Mucin impedes cytotoxic effect of 5-FU against growth of human pancreatic cancer cells: Overcoming cellular barriers for therapeutic gain. *Br. J. Cancer* **97(7)**, 910-918 (2007).
3. Bresalier, R.S., Niv, Y., Byrd, J.C., *et al.* Mucin production by human colonic carcinoma cells correlates with their metastatic potential in animal models of colon cancer metastasis. *J. Clin. Invest.* **87(3)**, 1037-1045 (1991).





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