Creative Enzymes®

# Immobilized β-Galactosidase on G3m

*Cat. No. NATE-1775*

*Lot. No.* (See product label)

## Introduction

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| ***Description*** | β-galactosidase catalyzes the hydrolysis of β-D-galactoside to galactose and alcohol. G3m: 25 µg β-galactosidase immobilized on matrix G3m per CR-column. 20 units immobilized per CR-column. Nr. 14 Storage buffer: 50 mM Tris/HCl, pH 7. 8 add DTT to the storagebuffer, final concentration: 1 mM DTT Nr. 64 Reaction buffer: 50 mM phosphate, 1 mM MgCl2, pH 7. 8 add β-mercaptoethanol,to the reactionbuffer, final concentration: 10 mM Nr. 63 Washing buffer: 50 mM phosphate, 1 M NaCl, pH 7. 8 |
| ***Synonyms*** | β-Galactosidase; beta-gal; β-gal; GLB; 9031-11-2; EC 3. 2. 1. 23; lactase; β-lactosidase; maxilact; hydrolact; β-D-lactosidase; S 2107; lactozym; trilactase; β-D-galactanase; oryzatym; sumiklat |

## Product Information

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| ***Source*** | E. coli |
| ***EC Number*** | EC 3. 2. 1. 23 |
| ***Protocol*** | 1. Dilute delivered buffers (at least 2 ml each) with sterile doubly distilled water. For 1 application you need 1 ml 10x reaction buffer and 9 ml doubly distilled water. + 10 mM β-mercaptoethanol 2 ml 5x washing buffer and 8 ml doubly distilled water. 1 ml 10x storage buffer and 9 ml doubly distilled water + 1 mM DTT The substrate should be in reaction buffer 2. Equilibrate the CR-column with 10 ml reaction buffer. Fill 10 ml reaction buffer into a syringe, let the reaction buffer run through the column by gravity to the upper filter. In case the buffer runs very slowly, apply pressure by a syringe. 3. Load substrate solution in reaction buffer. Small volumes (< 70 µl): spin the CR-column 5 seconds in a benchtop centrifuge (2000 rpm are sufficient). Let the substrate solution enter the matrix material. Larger volumes: Let the substrate solution run through the column. Flow-rate: up to 70 µl/minute Keep the substrate in the column for about 1 minute at room temperature. Higher turn-over is obtained when the substrate is applied to the column again or incubated for longer times. 4. Elute the product solution. Small volumes (< 70 µl): centrifuge the product out of the column. Larger volumes: Let the substrate run through the column and spin the residual solution out of the matrix Notice: Molecules < 700 Dalton have to be eluted with 7 ml reaction buffer. It does not harm the columns if they run dry. 5. Wash the column with 10 ml washing buffer. 6. Equilibrate the column with 10 ml storage buffer. Store the column at 4°C. Never freeze a CR-column! |

## Storage and Shipping Information

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| ***Storage*** | 4 °C |