Creative Enzymes®

Immobilized Papain on G3m

Cat. No. NATE-1765

Lot. No. (See product label)

Introduction

Description Papain has wide specificity and degrades most protein substrates. Preferential cleavage: arg-, lys-, phe-X. Papain also has esterase activity. G3m: 25 µg (0.6 units) papain immobilized per CR-column on dextran. This CR-column digests at least 20 µg tubulin per application. Nr. 7 Storage buffer : 50 mM Tris/HCl, 4 mM EDTA, pH 7. 5 Nr. 52 Reaction buffer: 50 mM phosphate, 4 mM EDTA, pH 6. 0 Nr. 53 Washing buffer : 50 mM phosphate, 4 mM EDTA, 1 M NaCl, pH 6. 0 The enzyme is more active in the presence of 3. 5 mM cysteine.

Synonyms papayotin; summetrin; velardon; papaine; Papaya peptidase I; papain; EC 3. 4. 22. 2; 9001-73-4

Product Information

Source Papaya latex

EC Number EC 3. 4. 22. 2

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 2 ml 5x washing buffer and 8 ml doubly distilled water 1 ml 10x storage buffer and 9 ml doubly distilled water 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

Storage 4 °C