

## Native Bovine $\beta(1-3,4)$ -Galactosidase

Cat. No. NATE-0973

Lot. No. (See product label)

### Introduction

**Description** Hydrolyzes non-reducing terminal galactose  $\beta(1-3)$  and  $\beta(1-4)$  linkages. Can be used in conjunction with other  $\beta$ -galactosidases for exoglycosidase sequencing.

**Applications** The enzyme has applications in the analysis of a wide variety of glycoconjugates. It is particularly useful for ensuring the complete removal of  $\beta(1-3)$  and  $\beta(1-4)$ -linked non-reducing terminal galactose residues of oligosaccharides. Gal  $\beta(1-6)$  GlcNAc is hydrolyzed more slowly, however this linkage is not normally encountered in native complex glycans. This activity towards  $\beta(1-3)$  and  $\beta(1-4)$ -linked galactose contrasts with that of our other  $\beta$ -galactosidases which exhibit a preference for Gal  $\beta(1-4)$ , and cleave the Gal  $\beta(1-3)$  linkage relatively slowly, if at all. Used in conjunction, these enzymes provide a powerful means to determine linkage positions of non-reducing  $\beta$  galactose residues.

**Synonyms**  $\beta$ -galactosidase; beta-gal;  $\beta$ -gal; lactase;  $\beta$ -lactosidase; maxilact; hydrolact;  $\beta$ -D-lactosidase; lactozym; trilactase;  $\beta$ -D-galactanase; oryzatym; sumiklat;  $\beta$ -D-galactoside galactohydrolase

### Product Information

**Species** Bovine

**Source** Bovine testis

**Form** 20 mM sodium Citrate phosphate, 150 mM NaCl (pH 4.0)

**Molecular Weight** ~68 kD

**Optimum pH** 4

**Buffer** 5X concentrated buffer which when diluted gives 100 mM sodium Citrate/phosphate pH 4.0.

**Unit Definition** One unit is defined as the amount of enzyme required to hydrolyze 1  $\mu$ mole of pNP- $\beta$ -D-galactopyranoside per minute at pH 4.0 and 37°C.