



## **endo- $\alpha$ -N-ACETYLGALACTOSAMINIDASE from *E. faecalis* (Lot 130201b)**

### **Recombinant**

### **E-OGLYEF**

**09/15**

(EC 3.2.1.97) *O*-glycopeptide  $\alpha$ -N-acetylgalactosaminidase; *O*-Glycanase  
CAZy: GH Family 101

### **PROPERTIES**

#### **1. ELECTROPHORETIC PURITY:**

- Single band on SDS-gel electrophoresis (MW ~ 158,800)
- Single major band on isoelectric focusing (pI ~ 5.2)

#### **2. SPECIFIC ACTIVITY:**

**3.0 U/mg protein (on Gal- $\beta$ -1,3-GalNAc- $\alpha$ -pNP) at pH 7.5 and 37°C**

\***One Unit** of *endo*- $\alpha$ -N-acetylgalactosaminidase activity is defined as the amount of enzyme required to release one  $\mu$ mole of *p*-nitrophenol per minute from Gal- $\beta$ 1,3-GalNAc- $\alpha$ -pNP (0.2 mM) in Tris.HCl buffer (10 mM) pH 7.5 and 37°C, monitored at 410 nm.

\* Extinction coefficient ( $\epsilon$ ) of *p*-nitrophenol =  $11418 \text{ M}^{-1} \times \text{cm}^{-1}$

#### **3. SPECIFICITY:**

Hydrolysis of the *O*-glycosidic  $\alpha$ -linkage between Gal- $\beta$ 1,3-GalNAc (Core 1) or GlcNAc- $\beta$ 1,3GalNAc (Core 3) and a serine or threonine residue of glycopeptides and glycoproteins.

#### **4. PHYSICOCHEMICAL PROPERTIES:**

pH Optima: 7.5\*\*

#### **5. STORAGE CONDITIONS:**

The enzyme is supplied in 20 mM Tris.HCl pH 7.5, 50 mM NaCl, 5 mM EDTA plus 0.02% (w/v) sodium azide and should be stored at -20°C. For assay, this enzyme should be diluted in Tris.HCl buffer (100 mM), pH 7.5 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

#### **6. REFERENCES:**

Dimitris Koutsoulis, David Landry & Ellen P Guthrie (2008). Novel *endo*- $\alpha$ -N-acetylgalactosaminidases with broader substrate specificity. *Glycobiology* **18**, 799–805.

\*\* Literature values