

## Pyranose Oxidase from *Coriolus* sp., Recombinant

Cat. No. NATE-0500

Lot. No. (See product label)

### Introduction

**Description** Pyranose oxidase (P2O) catalyzes the oxidation of aldopyranoses at position C-2 to yield the corresponding 2-ketoaldoses. P2O is a homotetrameric protein that contains covalently bound flavin adenine dinucleotide (FAD). The in vivo substrates of P2O are thought to be D-glucose, D-galactose, and D-xylose. They are oxidized to 2-keto-D-glucose (D-arabino-hexos-2-ulose, 2-dehydro-D-glucose), 2-keto-D-galactose (D-lyxo-hexos-2-ulose, 2-dehydro-D-galactose), and 2-keto-D-xylose (D-threopentos-2-ulose, 2-dehydro-D-xylose), respectively. Pyranose oxidase has significant activity with carbohydrates such as, L-sorbose, D-glucono-1,5-lactone, and D-allose. When pyranose oxidase catalyzes the oxidation of aldopyranoses, electrons are transferred to molecular oxygen which results in the formation of hydrogen peroxide.

**Applications** Pyranose oxidase (P2O) is used for the determination of D-glucose and 1,5-anhydroglucitol in clinical analysis. It is used to study the biotransformations of carbohydrates and is used as an important marker for glycemic control in diabetes patients

**Synonyms** pyranose oxidase; EC 1.1.3.10; glucose 2-oxidase; pyranose-2-oxidase; 37250-80-9; P2O

### Product Information

**Species** *Coriolus* sp.

**Source** *E. coli*

**EC Number** EC 1.1.3.10

**CAS No.** 37250-80-9

**Activity** > 2.7 units/mg solid

**Unit Definition** One unit produces 1.0  $\mu\text{mol}$  of hydrogen peroxide per minute at 37°C, pH 7.0.

### Storage and Shipping Information

**Storage** -20°C