

## Native *Arthrobacter* sp. Tyramine Oxidase

Cat. No. DIA-158

Lot. No. (See product label)

### Introduction

**Description** Amine oxidases (AO) are enzymes that catalyze the oxidation of a wide range of biogenic amines including many neurotransmitters, histamine and xenobiotic amines. There are two classes of amine oxidases: flavin-containing (EC 1.4.3.4) and copper-containing (EC 1.4.3.6). Copper-containing AO act as a disulphide-linked homodimer. They catalyse the oxidation of primary amines to aldehydes, with the subsequent release of ammonia and hydrogen peroxide, which requires one copper ion per subunit and topaquinone as cofactor:  $RCH_2NH_2 + H_2O + O_2 \leftrightarrow RCHO + NH_3 + H_2O_2$ . The 3 substrates of this enzyme are primary amines ( $RCH_2NH_2$ ),  $H_2O$ , and  $O_2$ , whereas its 3 products are  $RCHO$ ,  $NH_3$ , and  $H_2O_2$ .

**Applications** Useful for enzymatic determination of leucine aminopeptidase

**Synonyms** Tyramine Oxidase; TOD; EC 1.4.3.6

### Product Information

**Source** *Arthrobacter* sp.

**Appearance** White to light brown powder

**Form** Freeze dried powder

**EC Number** EC 1.4.3.6

**CAS No.** 9001-53-0

**Activity** > 3 U/mg

**pH Stability** 6.0-8.0 (37°C, 60 mins)

**Optimum pH** 7

**Thermal stability** Stable at 45°C and below (pH 7.5, 5 mins)

### Storage and Shipping Information

**Storage** Store in tightly closed containers, desiccated, protected from light, at -20°C.