

## 4-hydroxythreonine-4-phosphate dehydrogenase

Cat. No. EXWM-0168

Lot. No. (See product label)

### Introduction

**Description** The product of the reaction undergoes decarboxylation to give 3-amino-2-oxopropyl phosphate. The enzyme is part of the biosynthesis pathway of the coenzyme pyridoxal 5'-phosphate found in anaerobic bacteria.

**Synonyms** NAD<sup>+</sup>-dependent threonine 4-phosphate dehydrogenase; L-threonine 4-phosphate dehydrogenase; 4-(phosphohydroxy)-L-threonine dehydrogenase; PdxA; 4-(phosphonooxy)-L-threonine:NAD<sup>+</sup> oxidoreductase

### Product Information

**Form** Liquid or lyophilized powder

**EC Number** EC 1.1.1.262

**CAS No.** 230310-36-8

**Reaction** 4-phosphonooxy-L-threonine + NAD<sup>+</sup> = 3-amino-2-oxopropyl phosphate + CO<sub>2</sub> + NADH + H<sup>+</sup> (overall reaction); (1a) 4-phosphonooxy-L-threonine + NAD<sup>+</sup> = (2S)-2-amino-3-oxo-4-phosphonooxybutanoate + NADH + H<sup>+</sup>; (1b) (2S)-2-amino-3-oxo-4-phosphonooxybutanoate = 3-amino-2-oxopropyl phosphate + CO<sub>2</sub> (spontaneous)

**Notes** This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

### Storage and Shipping Information

**Storage** Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.