

2,4-dinitrotoluene dioxygenase

Cat. No. EXWM-0691

Lot. No. (See product label)

Introduction

Description This enzyme, characterized from the bacterium Burkholderia sp. strain DNT, is a member of the naphthalene family of bacterial Rieske non-heme iron dioxygenases. It comprises a multicomponent system, containing a Rieske [2Fe-2S] ferredoxin, an NADH-dependent flavoprotein reductase (EC 1.18.1.3, ferredoxin-NAD⁺ reductase), and an $\alpha\beta\gamma$ oxygenase. The enzyme forms a cis-dihydroxylated product that spontaneously rearranges to form a catechol with accompanying release of nitrite. It does not act on nitrobenzene. cf. EC 1.14.12.23, nitroarene dioxygenase.

Synonyms dntA (gene name)

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.14.12.24

Reaction 2,4-dinitrotoluene + NADH + O₂ = 4-methyl-5-nitrocatechol + nitrite + NAD⁺

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.