Creative Enzymes®

5-nitrosalicylate dioxygenase

Cat. No. EXWM-0584

Lot. No. (See product label)

Introduction

Description	The enzyme, characterized from the soil bacterium Bradyrhizobium sp. JS329, is involved in the pathway of 5-nitroanthranilate degradation. It is unusual in being able to catalyse the ring fission without the requirement for prior removal of the nitro group. The product undergoes spontaneous lactonization, with concurrent elimination of the nitro group.
Synonyms	naaB (gene name); 5-nitrosalicylate:oxygen 1,2-oxidoreductase (decyclizing)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.13.11.64
Reaction	5-nitrosalicylate + O2 = 2-oxo-3-(5-oxofuran-2-ylidene)propanoate + nitrite (overall reaction); (1a) 5-nitrosalicylate + O2 = 4-nitro-6-oxohepta-2,4-dienedioate; (1b) 4-nitro-6-oxohepta-2,4-dienedioate = 2-oxo-3-(5-oxofuran-2-ylidene)propanoate + nitrite (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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.