(6-4)DNA photolyase

Cat. No. EXWM-4928

Lot. No. (See product label)

Introduction

Description	A flavoprotein (FAD). The overall repair reaction consists of two distinct steps, one of which is light-independent and the other one light-dependent. In the initial light-independent step, a 6-iminium ion is thought to be generated via proton transfer induced by two histidines highly conserved among the (6-4) photolyases. This intermediate spontaneously rearranges to form an oxetane intermediate by intramolecular nucleophilic attack. In the subsequent light-driven reaction, one electron is believed to be transferred from the fully reduced FAD cofactor (FADH-) to the oxetane intermediate thus forming a neutral FADH radical and an anionic oxetane radical, which spontaneously fractures. The excess electron is then back-transferred to the flavin radical restoring the fully reduced flavin cofactor and a pair of pyrimidine bases.
Synonyms	DNA photolyase; H64PRH; NF-10; phr (6-4); PL-(6-4); OtCPF1; (6-4) PHR; At64PHR

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.1.99.13
CAS No.	37290-70-3
Reaction	(6-4) photoproduct (in DNA) = 2 pyrimidine residues (in DNA)
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 ℃.