Creative Enzymes®

phosphatidylinositol-4,5-bisphosphate 4-phosphatase

Cat. No. EXWM-3683

Lot. No. (See product label)

Introduction

Description	Two pathways exist in mammalian cells to degrade 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate [PtdIns(4,5)P2]. One is catalysed by this enzyme and the other by EC 3.1.3.36, phosphoinositide 5-phosphatase, where the product is PtdIns4P. The enzyme from human is specific for PtdIns(4,5)P2 as substrate, as it cannot use PtdIns(3,4,5)P3, PtdIns(3,4)P2, PtdIns(3,5)P2, PtdIns5P, PtdIns4P or PtdIns3P. In humans, the enzyme is localized to late endosomal/lysosomal membranes. It can control nuclear levels of PtdIns5P and thereby control p53-dependent apoptosis.
Synonyms	phosphatidylinositol-4,5-bisphosphate 4-phosphatase I; phosphatidylinositol-4,5-bisphosphate 4-phosphatase II; type I PtdIns-4,5-P2 4-Ptase; type II PtdIns-4,5-P2 4-Ptase; IpgD; PtdIns-4,5-P2 4-phosphatase type I; PtdIns-4,5-P2 4-phosphatase type II; type I phosphatidylinositol-4,5-bisphosphate 4-phosphatase; type 1 4-phosphatase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 3.1.3.78
Reaction	1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate + H2O = 1-phosphatidyl-1D-myo-inositol 5-phosphate + phosphate
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 ℃.