

Datasheet for ABIN7540355

Pyrophosphatase (Inorganic) 1 (PPA1) protein (His tag)[Go to Product page](#)

Overview

Quantity:	10 U
Target:	Pyrophosphatase (Inorganic) 1 (PPA1)
Origin:	Saccharomyces cerevisiae
Source:	Yeast (Pichia pastoris)
Protein Type:	Recombinant
Purification tag / Conjugate:	His tag
Application:	SDS-PAGE (SDS), Enzyme Linked Inorganic Phosphate Assay (ELIPA), In vitro Assay (in vitro)

Product Details

Purpose:	Recombinant <i>S. cerevisiae</i> hydrolase, his-tagged
Sequence:	MHHHHHHTYT TRQIGAKNTL EYKVYIEKDG KPVSAFHDIP LYADKENNIF NMVVEIPRWT NAKLEITKEE TLNPIIQDTK KGKLRFVRNC FPHHGYIHNY GAFPQTWEDP NVSHPETKAV GDNDPIDVLE IGETIAYTGQ VKQVKALGIM ALLDEGETDW KVIADINDP LAPKLNIED VEKYFPGLLR ATNEWFRIYK IPDGKPENQF AFSGEAKNKK YALDIIKETH DSWKQLIAGK SSDSKGIDLT NVTLPTPTY SKAASDAIPP ASPKADAPID KSIDKWWFIS GSV
Specificity:	Inorganic Pyrophosphatase (iPPase, EC 3.6.1.1) is a recombinant hydrolase cloned from <i>S. cerevisiae</i> and overexpressed in <i>H. polymorpha</i> . The enzyme is active as dimer and requires divalent cations such as Mg ²⁺ to catalyse the reaction. iPPase can pull energy consuming reactions requiring ATP hydrolysis by hydrolyzing the resulting diphosphate e.g. during in vitro RNA synthesis.
Purification:	multi-step purification including chromatography and diafiltration

Product Details

Purity:	> 95 % (SDS-PAGE)
Grade:	Animal-Free
Unit Definition:	One unit is defined as the amount of Enzyme necessary to hydrolyse 1 μ mol diphosphate in one minute at pH 7.2 and 25 °C which is measured as phosphate released according to the Malachite Green reaction.

Target Details

Target:	Pyrophosphatase (Inorganic) 1 (PPA1)
Alternative Name:	inorganic Pyrophosphatase (PPA1 Products)
Background:	Inorganic Pyrophosphatase (iPPase, EC 3.6.1.1) is a recombinant hydrolase cloned from <i>S. cerevisiae</i> and overexpressed in <i>H. polymorpha</i> . The enzyme is active as dimer and requires divalent cations such as Mg ²⁺ to catalyse the reaction. iPPase can pull energy consuming reactions requiring ATP hydrolysis by hydrolyzing the resulting diphosphate e.g. during in vitro RNA synthesis.
Molecular Weight:	theor. 33.1 kDa (monomer)
Gene ID:	852296
NCBI Accession:	NP_009565
UniProt:	P00817

Application Details

Application Notes:	use about 20,000-fold diluted (10 μ U/ μ l) in assay: dilute 2,000-fold and add 0.1 volume diluted enzyme to 0.9 volume diphosphate assay reaction
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	25 mM NaCl, 0.1 mM EDTA, 50 % v/v glycerol, 10 mM TRIS Cl, pH 7.5 (at 25 °C)
Storage:	-20 °C