CREATIVE BIOMART®
Assay Kit

Protein Phosphatase LMW-PTP/ACP1 Fluorometric (Human) Assay Kit

Product Information

Cat.No. Kit-0737

Product Overview

Protein Phosphatase LMW-PTP/ACP1 Fluorometric (Human) Assay Kit is a fluorometric and non-radioactive assay designed to measure the activity of LMW-PTP/ACP1 protein phosphatase.

Description

Protein tyrosine phosphorylation plays an essential role in the regulation of many cellular processes, including cellular proliferation, differentiation, migration and tumorigenic transformation. The phosphorylation of proteins on tyrosine is catalyzed by numerous protein tyrosine kinases, and is rapidly and reversibly dephosphorylated by Protein tyrosine phosphatases (PTPases).The low molecular weight protein tyrosine phosphatase (LMW-PTP) is an 18-kDa cytosolic enzyme, also known as acidic protein phosphatase 1 (ACP1).LMW-PTP/ACP1 is specific for phosphotyrosine in peptides and proteins, but the enzyme shares very limited sequence homology with other PTPases. Although LMW-PTP/ACP1 has been showed as negative regulator of insulin- and platelet-derived growth factor (PDGF)-mediated mitotic and metabolic signaling, LMW-PTP/ACP1 is frequently overexpressed in transformed cell. Recent studies suggested that entopic overexpression of LMW-PTP/ACP1 is sufficient to confer transformation in epithelial cells and its oncogenic activities required EphA2. LMW-PTP/ACP1 negatively regulates EphA2 receptor tyrosine kinase. LMW-PTP/ACP1 is a positive regulator of both tumor onset and development through ephrin-EphA2 signaling process, and it is a potential target of anticancer drug development.

Applications

The Protein Phosphatase LMW-PTP/ACP1 Fluorometric Assay Kit is a fluorometric and non-radioactive assay designed to measure the activity ofLMW-PTP/ACP1 protein phosphatase. This 96-well assay is useful for screening inhibitors and modulators of LMW-PTP/ACP1 activity in HTS. Thekit includes all necessary components, including recombinant, human full length LMW-PTP/ACP1, for use in preinvestigational drug discovery assays.

Target Species

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CREATIVE BIOMART®
Assay Kit

Protein Phosphatase LMW-PTP/ACP1 Fluorometric (Human) Assay Kit

Human

Usage

For research use only (RUO)

Storage

□Upon receipt, store the kit at –70°C□Do not expose reagents to excessive light.□AVOID REPEATED FREEZE THAW CYCLES OF "Recombinant LMW-PTP/ACP1"!

Kit Components

10X Assay Buffer 600 µL x 1 Less than -20°C10X OMFP 550 µL x 1 Less than -20°CRecombinant LMW-PTP/ACP1 (20 m units/µL)* 500 µL x 1 -70°C100X Phosphatase Inhibitor : 100 mM Na3VO4 in DW 100 µL x 1 Less than -20°CStop Solution 1,300 µL x 2 Less than -20°CInstruction Manual 1 Room temp.*"Recombinant LMW-PTP/ACP1" is human full length with N-terminal GST-Tag. The GenBank Accession No. is BC~10^6011.

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