

Protein Phosphatase Cdi1/KAP Fluorometric (Human) Assay Kit

Cat. No. Kit-0736 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Protein Phosphatase Cdi1/KAP Fluorometric (Human) Assay Kit is a fluorometric and non-radioactive assay designed to measure the activity of Cdi1/KAP protein phosphatase.

Description

A Cdk-interacting protein called Cdi1 (cyclin-dependent kinase interactor 1)/KAP (kinase associated phosphatase) was first identified as a novel G1- and S-phase dual-specificity phosphatase that associates with Cdk2 and/or Cdc2 by the interaction trap, a yeast genetic selection for interacting proteins. Using yeast two hybrid system, Cdi1/KAP interacts with cyclin-dependent kinases, including human Cdc2, Cdk2 and Cdk3, but not with Cdk4. In HeLa cells, Cdi1/KAP is expressed at the G1 to S transition, and the protein forms stable complexes with Cdk2. Further studies demonstrated that Cdi1/KAP binds to Cdk2 and dephosphorylates Thr160 when the associated cyclin subunit is degraded or dissociated. It means that Cdi1/KAP may inactivate a Cdk2 or Cdc2, by removing phosphates from the cyclin complexes, and this may contribute to cell cycle control. However, the physiological substrate(s) for tyrosine dephosphorylation of Cdi1/KAP has not yet been identified.

Applications

The Cdi1/KAP Fluorometric Assay Kit is a fluorometric and non-radioactive assay designed to measure the activity of Cdi1/KAP protein phosphatase. This 96-well assay is useful for screening inhibitors and modulators of Cdi1/KAP activity in HTS. The kit includes all necessary components, including recombinant, human Cdi1/KAP (full length), for use in preinvestigational drug discovery assays.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Target Species	Human
Usage	For research use only (RUO)
Storage	Upon receipt, store all kit components at -20°C, except Recombinant Cdi1/KAP. Recombinant Cdi1/KAP should be stored at -70°C. Do not expose reagents to excessive light.
Kit Components	10X Assay Buffer 600 μ x 1 -20°C 10X 3-o-methyl fluorescein phosphate (OMFP) 550 μ x 1 -20°C Recombinant Cdi1/KAP, Human (0.4 μ g/ μ) 550 μ x 1 -70°C 100X Cdi1 Inhibitor : 100 μ M Na ₃ VO ₄ in H ₂ O 100 μ x 1 -20°C Stop Solution 300 μ x 1 -20°C Instruction Manual 1 Room temp.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA