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Datasheet for 009-001-153S

CyclinD1 protein-GST fusion

Overview

Description:	CyclinD1 recombinant protein-GST fusion protein - 009-001-153S
Item No.:	009-001-153S
Size:	20 µg
Applications:	Biochemical Assay, Functional Assay, IP
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	CyclinD1 is a member of the cyclin family of proteins that are important regulators cyclin-dependent protein kinases (CDKs) (1). CyclinD1 forms a complex and functions as a regulatory subunit of CDK4 or CDK6 which are important during cell cycle G1/S transition. CyclinD1 has been shown to interact with the tumor suppressor protein Rb and the expression of CyclinD1 is positively regulated by Rb. Mutations, amplification and overexpression of CyclinD1 have been frequently observed in a variety of tumors and suggesting a role of this protein in tumorigenesis (2). CyclinD1 is ideal for investigators involved in Signaling Proteins, Cell Cycle Proteins, Cancer, and Cell Cycle research.
Synonyms:	BCL1, PRAD1, U21B31, D11S287E, G1/S-specific cyclin-D1, B-cell lymphoma 1 protein, BCL-1 oncogene, PRAD1 oncogene
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein

Target Details

Gene Name:	CCND1
Purity/Specificity:	Recombinant full-length human CyclinD1 was expressed in E. coli cells using an N-Terminal Glutathione-S-Transferase fusion protein. The purity was determined to be >85% by densitometry.
Relevant Links:	• NCBI - NM_053056

Application Details

Suggested Applications:	Biochemical Assay, Functional Assay, IP (Based on references)
Application Note:	CyclinD1 Protein is stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol. CyclinD1 Protein is suitable for use in Western Blot. Expect a band approximately ~ 61kDa on specific lysates or tissues. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	User Optimized

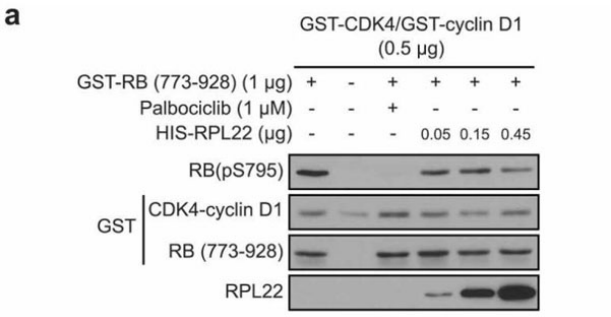
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.2 µg/µL
Buffer:	See application note.

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunoprecipitation
RPL22/eL22 directly binds and inhibits CDK4-cyclin D1 complex. (a) Immunoblots of the indicated proteins after in vitro kinase assay containing ATP and GST-CDK4 and GST-cyclin D1, with or without GST-RB (773–928), palbociclib and HIS-RPL22. RB(pS795): RB phosphorylated on serine 795. Figure 4.. PMID: 30874462.

References

- Del Toror N et al. Ribosomal protein RPL22/eL22 regulates the cell cycle by acting as an inhibitor of the CDK4-cyclin D complex. *Cell Cycle* (2019)

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