

Product datasheet

Human Cyclin D1 Matched Antibody Pair Kit ab218793

[1 Image](#)

Overview

Product name	Human Cyclin D1 Matched Antibody Pair Kit
Detection method	Colorimetric
Assay type	ELISA set
Range	125 pg/ml - 8000 pg/ml
Species reactivity	Reacts with: Human
Product overview	Matched Antibody Pair Kits include a capture and a biotinylated detector antibody pair, along with a calibrated protein standard, suitable for sandwich ELISA. The Matched Antibody Pair Kit can be used to quantify native and recombinant human Cyclin D1.

Both capture and detector antibodies are rabbit monoclonal antibodies.

Matched antibody pair kits and reagents deliver consistent, specific, and sensitive results.

Batch-to-batch consistency: only recombinant monoclonal antibodies are used in our matched antibody pairs.

Specificity: antibody pairs are screened in plasma and serum to ensure specificity in complex samples.

Sensitivity: benchmarked against commercially available antibody pairs to ensure equivalent or superior performance compared with the competition.

Additional buffers and plates are required for the assay. An accessory pack can be purchased which includes buffer reagents required to perform 10 x 96-well plate sandwich ELISAs ([ab210905](#)).

For additional information on the performance of the antibody pair used in this kit, please see our equivalent SimpleStep ELISA[®] ([ab214571](#)) which uses the same antibody pair.

To receive an electronic copy of the Certificate of Analysis, please send an [email](#) with "CoA for matched antibody pair kit" in the subject line and the desired product number and lot number in the body of the email.

Tested applications **Suitable for:** ELISA

Platform Reagents

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	10 x 96 tests	2 x 96 tests
Human Cyclin D1 Capture Antibody	1 x 100µg	1 x 20µg
Human Cyclin D1 Detector Antibody	1 x 25µg	1 x 5µg
Human Cyclin D1 Lyophilized Protein	1 vial	1 vial

Function Essential for the control of the cell cycle at the G1/S (start) transition.

Involvement in disease Note=A chromosomal aberration involving CCND1 may be a cause of B-lymphocytic malignancy, particularly mantle-cell lymphoma (MCL). Translocation t(11;14)(q13;q32) with immunoglobulin gene regions. Activation of CCND1 may be oncogenic by directly altering progression through the cell cycle.

Note=A chromosomal aberration involving CCND1 may be a cause of parathyroid adenomas. Translocation t(11;11)(q13;p15) with the parathyroid hormone (PTH) enhancer.

Defects in CCND1 are a cause of multiple myeloma (MM) [MIM:254500]. MM is a malignant tumor of plasma cells usually arising in the bone marrow and characterized by diffuse involvement of the skeletal system, hyperglobulinemia, Bence-Jones proteinuria and anemia. Complications of multiple myeloma are bone pain, hypercalcemia, renal failure and spinal cord compression. The aberrant antibodies that are produced lead to impaired humoral immunity and patients have a high prevalence of infection. Amyloidosis may develop in some patients. Multiple myeloma is part of a spectrum of diseases ranging from monoclonal gammopathy of unknown significance (MGUS) to plasma cell leukemia. Note=A chromosomal aberration involving CCND1 is found in multiple myeloma. Translocation t(11;14)(q13;q32) with the IgH locus.

Sequence similarities Belongs to the cyclin family. Cyclin D subfamily.

Post-translational modifications Phosphorylation at Thr-286 by MAP kinases is required for ubiquitination and degradation following DNA damage. It probably plays an essential role for recognition by the FBXO31 component of SCF (SKP1-cullin-F-box) protein ligase complex.

Ubiquitinated, primarily as 'Lys-48'-linked polyubiquitination. Ubiquitinated by a SCF (SKP1-CUL1-F-box protein) ubiquitin-protein ligase complex containing FBXO4 and CRYAB (By similarity). Following DNA damage it is ubiquitinated by some SCF (SKP1-cullin-F-box) protein ligase complex containing FBXO31. Ubiquitination leads to its degradation and G1 arrest. Deubiquitinated by USP2; leading to stabilize it.

Cellular localization Nucleus.

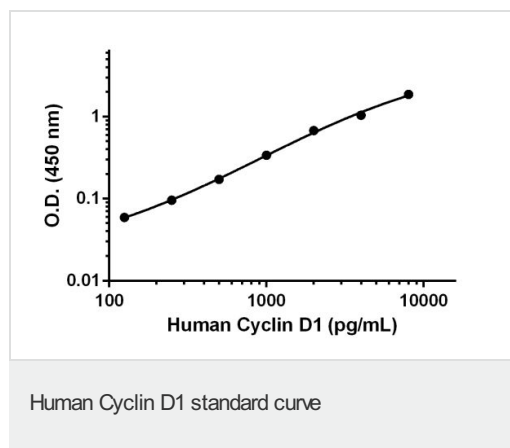
Applications

Our [Abpromise guarantee](#) covers the use of **ab218793** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.

Images



Standard calibration curve. Background subtracted values are graphed.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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