

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Cyclin D1/D2 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Cyclin D1 Met1-Ile295 Accession # P24385
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the Technical Information section on our website.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Intracellular Staining by Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

The D-type cyclins (cyclins D1, D2, and D3) and their associated kinases, Cdk4 and Cdk6, play an important role in the progression from G₀/G₁ to S phase in the mammalian cell cycle. Cyclin D complexes containing Cdk4 or Cdk6 phosphorylate the retinoblastoma protein (pRb). pRb phosphorylation leads to the release of E2F transcription factors, which activate the expression of S-phase genes and thereby induce cell cycle progression. Cyclin D1, independent of Cdk4 activity, functions as a transcriptional modulator by regulating the activity of several transcription factors, such as estrogen receptor, Myb, and STAT3. Cyclin D1 has also been linked to the development and progression of several cancers including breast, bladder, esophagus, and lung. Overexpression of Cyclin D2 has been reported in gastric carcinoma, ovarian granulosa cell tumors, and hematopoietic cell cancers, while in breast cancers, cyclin D2 expression is undetectable in 80% of the tumors.

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