GENE BIO SOLUTION

CYCLIN D1 RABBIT

Format	Catalogno.	Pack size	Dilution
Concentrated	GB307AK,BK, CK	0.1, 0.5, 1.0 mL	1:50
Prediluted	GB307AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

This rabbit monoclonal antibody targets a 36 kDa protein, recognized as Cyclin D1 antibody rabbit (sometimes referred to as Bcl-1 or PRAD-1). The rabbit Cyclin D1 antibody is a regulatory component of certain protein kinases believed to facilitate the G1 phase of the cell cycle. Cyclin D1, in conjunction with CD5, CD10, and CD23, serves as a dependable immunohistochemistry marker for mantle cell lymphoma. Research indicates that Cyclin D1 serves as a clinically useful marker for invasive breast cancer. The advanced technique utilized in the manufacture of this antibody results in a binding capacity that surpasses that of mouse monoclonal antibodies and is nearly devoid of background interference.

INTENDED USE -

Cyclin D1 [SP4] is a rabbit monoclonal antibody designed for laboratory applications to qualitatively identify Cyclin D1 protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence must be supplemented by morphological studies utilizing appropriate controls and assessed in conjunction with the patient's clinical history and other diagnostic tests by a skilled pathologist.

SUMMARY AND EXPLANATION -

This rabbit monoclonal antibody identifies a 36 kDa protein, known as Cyclin D1 (sometimes referred to as Bcl-1 or PRAD-1). Cyclin D1 is a regulatory subunit of specific protein kinases believed to promote the G1 phase of the cell cycle. Cyclin D1, in conjunction with CD5, CD10, and CD23, serves as a dependable immunohistochemistry marker for mantle cell lymphoma. Cyclin D1 is additionally expressed in invasive breast carcinoma.

PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection method may be employed. A single-step procedure will utilize a polymer tagged with an enzyme that binds to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to attach to the linkerantibody.Thepresenceofboundantibodiesisdemonstratedbyacolorimetric response.

SOURCE - : Rabbit monoclonal

SPECIES REACTIVITY - Human, mouse, and rat

CLONE- SP4

ISOTYPE - IgG

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - Cyclin D1

CELLULAR LOCALISATION - Nuclear

POSITIVE TISSUE CONTROL - Mantle cell lymphoma and breast cancer

KNOWN APPLICATIONS - I mmunohistochemistry
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95ºC followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative Renoir Red (PD904)

STORAGE AND STABILITY -

Store at 2ºC to 8ºC. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Materials required but not provided -

1) Positivetissuecontrol-Mantlecelllymphomaandbreastcancer
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips

4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.