IBL Data Sheet

Code No. 11011

Anti-Human
Bcl-1/Cyclin D1 (5D4) Mouse IgG MoAb

Volume : 200 μg

Introduction : Bcl-1/Cyclin D1 belongs to the G1 cyclins and plays a key role in cell cycle regulation during the G1/S transition by cooperating with cyclin-dependent kinases (CDKs). Its overexpression may lead to growth advantage for tumor cells by way of cell cycle progression, and actually it has been reported in various human cancers, e.g., esophageal, breast, and bladder carcinomas. Among hematolymphoid malignancies, cyclin D1 overexpression resulting from translocational activation has also been recognized in a subset of B-chronic lymphocytic leukemia (B-CLL), multiple myeloma, splenic marginal zone lymphoma, hairy cell leukemia, and mantle cell lymphoma.

Antigen : recombinant Human PRAD1/cyclin D1 (*E. coli*)

Source : Mouse-Mouse hybridoma

Clone : 5D4

Subclass : IgG_{2a}

Purification : Affinity Purified with protein A

Form : Lyophilized product from 1% BSA in PBS containing 0.05%NaN_3

How to use : 1 ml distilled water will be added to the product

Dilution : PBS (pH7.4) containing 1% BSA

Stability : Lyophilized product, 5 years at 2 – 8 ℃
: Solution, 2 years at –20 ℃

Application : This antibody can be stained in formalin fixed paraffin embedded tissues after microwave treatment by several Immunohistochemical techniques such as Avidin Bition Complex (ABC) Method. The optimal dilution is 2～5 μg/ml, however, the dilution rate should be optimized by each laboratories.
This antibody can be used for western blotting in concentration of 2～5 μg/ml.

Specificity : Cross-react with cyclin D2

References : Banno S. et al. Monoclonal antibody against PRAD1/cyclin D1 stains nuclei of tumor cells with translocation or amplification at BCL-1 locus. Japanese Journal of Cancer Research. 1994: **85** (12), 1270-1279

Nakamura S. et al. Immunohistochemical analysis of cyclin D1 protein in hematopoieic neoplasms with special reference to mantle cell lymphoma. Japanese Journal of Cancer Research 1994: **85** (12), 1270-1279

Kuroda H. et al. The positive nuclear staining observed with monoclonal antibody against PRAD1/Cycline D1 correlates with mRNA expression in mantle cell lymphoma. Japanese Cancer Research. 1995: **86** (9), 890-898

Yatabe Y. et al. Clinicopatholgic study of PRAD1/cycline D1 overexpessing lymphoma with special reference to mantle lymphoma, a distinct molecular pathologic entity. The American Journal of Surgical Pathology 1996: **20** (9), 1110-1122

Yasogawa Y. et al. The 5D4 antibody (anti-cyclin D1/D2) related antigen: cyotoplasmic staining is correlated to the progression of gastric cancer. Pathology International. 1998: **48** (9), 717-722

Yatabe Y. et al. Significance of cyclin D1 overexpression for the diagnosis of mantle cell lymphoma: a clinicopathologic comparison of cyclin D1-positive MCL and cyclin D1-negative MCL-like B-cell lymphoma. Blood. 2000: **95** (7), 2253-2261