

Datasheet for 600-401-GZ4**Retinoblastoma K860 Me1 Antibody****Overview**

Description:	Anti-Retinoblastoma [Monomethyl Lys860] (RABBIT) Antibody - 600-401-GZ4
Item No.:	600-401-GZ4
Size:	100 µg
Applications:	Dot Blot, ELISA, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	RB1 (RB Transcriptional Corepressor 1) is a protein coding gene. The protein encoded by this gene is a negative regulator of the cell cycle and was the first tumor suppressor gene found. Promotes G0-G1 transition when phosphorylated by CDK3/cyclin-C. Acts as a transcription repressor of E2F1 target genes. The active, hypo-phosphorylated form of RB1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. RB1 is directly involved in heterochromatin formation by maintaining overall chromatin structure and the constitutive heterochromatin, by stabilizing histone methylation. Retinoblastoma recruits and targets histone methyltransferases SUV39H1, KMT5B and KMT5C, leading to epigenetic transcriptional repression. It controls histone H4 Lys-20 trimethylation and inhibits the intrinsic kinase activity of TAF1. It mediates transcriptional repression by SMARCA4/BRG1 by recruiting a histone deacetylase (HDAC) complex to the c-FOS promoter. In resting neurons, transcription of the c-FOS promoter is inhibited by BRG1-dependent recruitment of a phospho-RB1-HDAC1 repressor complex. Upon calcium influx, RB1 is dephosphorylated by calcineurin, which leads to release of the repressor complex (By similarity). In case of viral infections, interactions with SV40 large T antigen, HPV E7 protein, or adenovirus E1A protein induce the disassembly of RB1-E2F1 complex thereby disrupting RB1s activity. RB1 may be associated with diseases such as retinoblastoma, small cell cancer of the lung, bladder cancer, and osteogenic sarcoma. Anti-Retinoblastoma K860 Me1 Antibody is useful for researchers interested in cancer, transcription factor, epigenetics, and enzyme antibody research.
Synonyms:	Retinoblastoma-associated protein, p105-Rb, pRb, pp110, RB Transcriptional Co-repressor, Protein Phosphatase 1 Regulatory Subunit 130, Prepro-Retinoblastoma-Associated Protein, Retinoblastoma, P105-Rb, Retinoblastoma Susceptibility Protein, Retinoblastoma-Associated Protein, Osteosarcoma, PPP1R130, OSRC
Host Species:	Rabbit

Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	RB1
Reactivity:	Human
PTM Specificity:	Methylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Retinoblastoma [Monomethyl Lys860] Antibody was prepared from whole rabbit serum produced by repeated immunizations with a methylated and acetylated synthetic peptide surrounding lysine 860 of human RB1 conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human Retinoblastoma. This product was affinity purified from monospecific antiserum by immunoaffinity purification. This antibody reacts with human RB1 surrounding aa860 and is specific for K860 Me1. Blast analysis of the sequence of the immunogen shows 100% identity with human and 92% identity to rat and mouse.
Relevant Links:	• UniProtKB - P06400 • NCBI - NP_000312.2 • GeneID - 5925

Application Details

Tested Applications:	Dot Blot, ELISA, WB
Application Note:	Anti-Retinoblastoma K860 Me1 Antibody was tested for use in ELISA, Dot Blot, and Western Blot. Expect a band at approximately 106.1kDa in MOLT-4 and other appropriate cell lysates or tissues. Although not tested, expect reactivity in immunoprecipitation and immunohistochemistry.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
WB:	1.0 ug/ml
Other:	Dot blot: 1.0 ug/ml

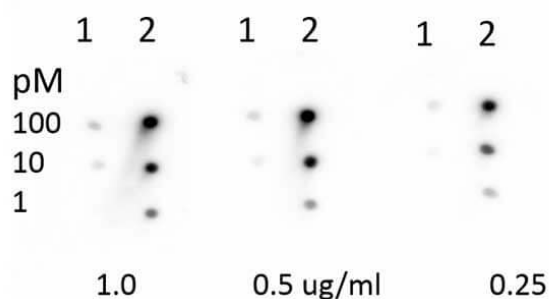
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.99 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

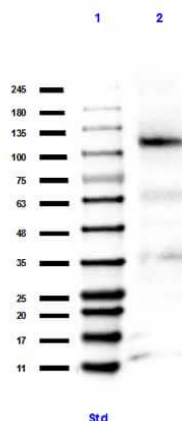
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Dot Blot

Dot Blot of Rabbit Anti-Retinoblastoma [Monomethyl Lys860] Antibody. Lane 1: Unmodified peptide Retinoblastoma peptide. Lane 2: Retinoblastoma [Monomethyl Lys860] peptide. Load: 1.0, 0.5, and 0.25 picomoles of peptide. Primary antibody: Retinoblastoma [Monomethyl Lys860] antibody at 1.0, 0.5, and 0.25 µg/ml for o/n at 4°C. Secondary antibody: Gt-A-Rb IgG HRP Conjugated Secondary Antibody (p/n 611-103-122) at 1:40,000 in BLOTTO Blocking Buffer 30min at RT. Block: 5% BLOTTO (p/n B501-0500) 30 min at RT.



Western Blot

Western Blot of Rabbit anti-Retinoblastoma [Monomethyl Lys860] antibody. Lane 1: MW ladder opal pre-stained (p/n MB-210-0500). Lane 2: MOLT-4 WCL (p/n W09-001-GK2). Load: 35 ug per lane. Primary antibody: Retinoblastoma antibody at 1:1000 for overnight at 4°C. Secondary antibody: rabbit secondary HRP antibody (p/n 611-103-122) at 1:70,000 for 30 min at RT. Block: BlockOut (p/n MB-073) 30 min at RT. Predicted/Observed size: expect 106 kDa for Retinoblastoma protein.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.