Datasheet for ABIN7127740

Recombinant anti-Retinoblastoma 1 antibody (pSer780)

3 Images

Go to Product page

Overview

Quantity:	100 µL
Target:	Retinoblastoma 1 (RB1)
Binding Specificity:	pSer780
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This Retinoblastoma 1 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	A synthesized peptide derived from human Phospho-RB1 (S780)
Clone:	2E9
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Affinity-chromatography

Target Details

Target:	Retinoblastoma 1 (RB1)
Alternative Name:	RB1 (RB1 Products)

Target Details

Background:	Background: Key regulator of entry into cell division that acts as a tumor suppressor. Promotes G0-G1 transition when phosphorylated by CDK3/cyclin-C. Acts as a transcription repressor of E2F1 target genes. The underphosphorylated, active form of RB1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation. Recruits and targets histone methyltransferases SUV39H1, KMT5B and KMT5C, leading to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Inhibits the intrinsic kinase activity of TAF1. 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 RB1's activity. Aliases: Retinoblastoma-associated protein, p105-Rb, pRb, Rb, pp110, RB1
UniProt:	P06400
Pathways:	Cell Division Cycle, Intracellular Steroid Hormone Receptor Signaling Pathway, Mitotic G1-G1/S Phases, DNA Replication, Maintenance of Protein Location, Synthesis of DNA, Autophagy

Application Details

Application Notes:	Recommended dilution: IHC:1:50-1:200, IF:1:20-1:200, IP:1:200-1:1000,
Restrictions:	For Research Use only

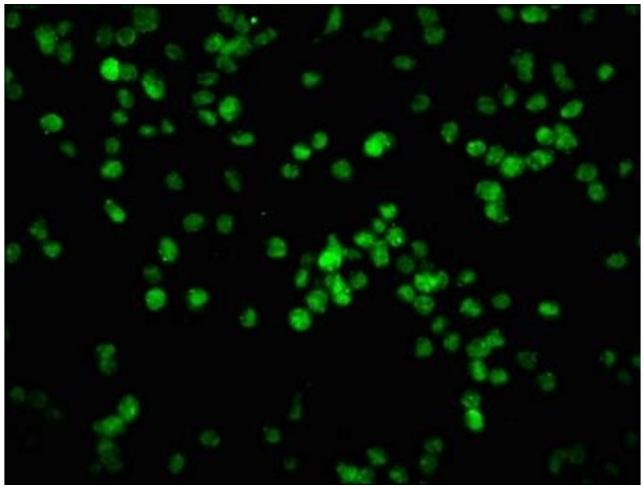
Handling

Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C

Handling

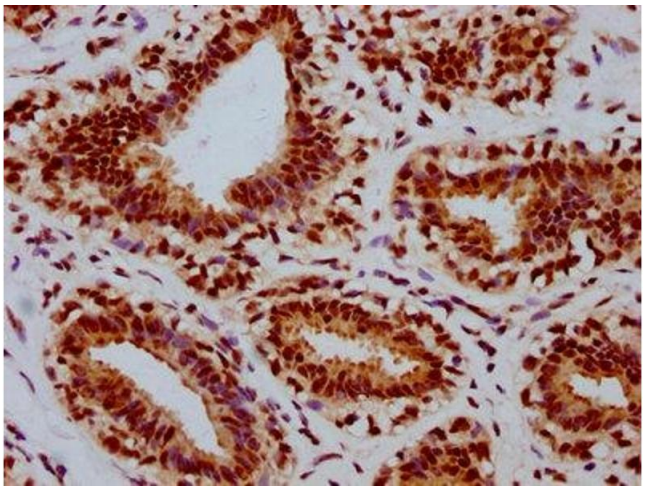
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



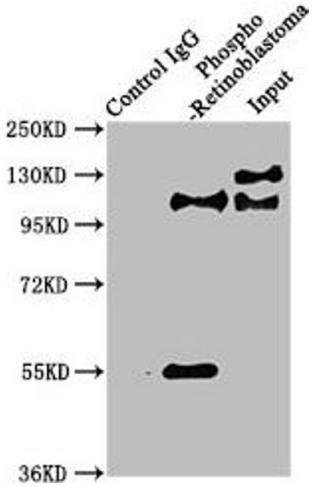
Immunofluorescence

Image 1. Immunofluorescence staining of K562 cells with ABIN7127740 at 1:100,counter-stained with DAPI. The cells were fixed in 4 % formaldehyde, permeabilized using 0.2 % Triton X-100 and blocked in 10 % normal Goat Serum. The cells were then incubated with the antibody overnight at 4 °C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG (H+L).



Immunohistochemistry

Image 2. IHC image of ABIN7127740 diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Western Blotting

Image 3. Immunoprecipitating Phospho-RB1 in Hela whole cell lysate Lane 1: Rabbit control IgG(1 µg)instead of ABIN7127740 in Hela whole cell lysate. For western blotting,a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) Lane 2: ABIN7127740(3 µg)+ Hela whole cell lysate(1 mg) Lane 3: Hela whole cell lysate (20 µg)