

Rb Antibody

Catalog No: #21109

Package Size: #21109-1 50ul #21109-2 100ul

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

Description

Product Name	Rb Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB IHC
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total Rb protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.805~809 (Y-I-S-P-L) derived from Human Rb.
Conjugates	Unconjugated
Target Name	Rb
Other Names	P105-RB; PP105; PP110; RB-1; RB1
Accession No.	Swiss-Prot: P06400NCBI Protein: NP_000312.2
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

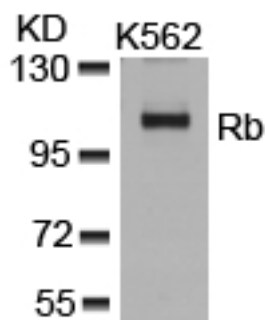
Application Details

Predicted MW: 110kd

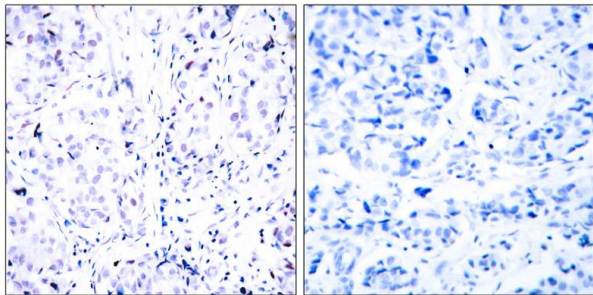
Western blotting: 1:500~1:1000

Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from K562 cells using Rb(Ab-807) Antibody #21109.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Rb(Ab-807) Antibody #21109(left) or the same antibody preincubated with blocking peptide(right).

Background

Rb operates in the midst of the cell cycle clock apparatus. Its main role is to act as a signal transducer connecting the cell cycle clock with the transcriptional machinery (Ref.1). It plays an important role in the Rb/ E2F pathway in cell proliferation, cell fate determination, and cancer (Ref.2). Cellular senescence is a stable form of cell cycle arrest that limits proliferation of damaged cells and act as a natural barrier to cancer progression. A distinct heterochromatic structure that accumulates in senescent human fibroblasts, designated as SAHF (Senescence-Associated Heterochromatic Foci). SAHF formation coincides with recruitment of heterochromatin proteins and the Rb protein to E2F-responsive promoters and is associated with the stable repression of E2F target genes. Both SAHF formation and the silencing of E2F target genes depended on the integrity of the Rb pathway and do not occur in reversibly arrested cells (Ref.3). Rb activates transcription of the c-Jun gene through the SP1-binding site within the c-Jun promoter

Roesch A, et al. (2005) *Mod Pathol*. 18(4): 565-572.

Chadee DN, et al. (2004) *Nat Cell Biol*. 6(8): 770-776.

Knudsen ES, et al. (1997) *Mol Cell Biol*. 17(10): 5771-5783.

Knudsen ES, et al. (1996) *J Biol Chem*. 271(14): 8313-8320.

Published Papers

Hui Xu, Yaping Yan, Mark S. Williams et al., MS4a4B, a CD20 Homologue in T Cells, Inhibits T Cell Propagation by Modulation of Cell Cycle., *PLoS ONE*, 5(11): e13780(2010)

[PMID:21072172](#)

et al., Luteolin induced G2 phase cell cycle arrest and apoptosis on non-small cell lung cancer cells. In *Toxicol In Vitro* on 2011 Oct by Cai X, Ye T, et al.. PMID:21601631, , (2011)

[PMID:21601631](#)

et al., Vinpocetine Inhibits Breast Cancer Cells Growth in Vitro and in Vivo. In *Apoptosis* on 2012 Oct by Er-Wen Huang, Sheng-Jiang Xue, et al.. PMID:22729609, , (2012)

[PMID:22729609](#)

et al., MS4a4B, a CD20 homologue in T cells, inhibits T cell propagation by modulation of cell cycle. In *PLoS One* on 2010 Nov 1 by Hui Xu, Yaping Yan, et al.. PMID:21072172, , (2010)

[PMID:21072172](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.