Product Datasheet

Rb Antibody

Catalog No: #21109

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

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

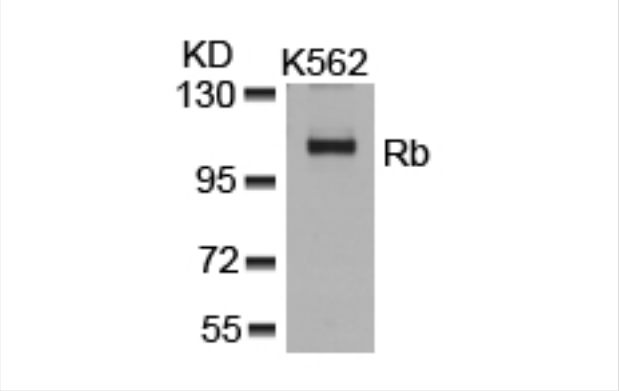
Description

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
Calculated MW	106kDa
SDS-PAGE MW	106kDa
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), 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.

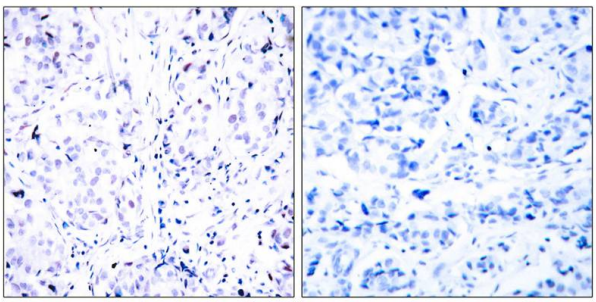
Application Details

WB 1:500-1:2000; IHC 1:50-1:200;

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

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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 el at., MS4a4B, a CD20 Homologue in T Cells, Inhibits T Cell Propagation by Modulation of Cell Cycle., PLoS ONE, 5(11): e13780(2010)

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el at., 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)

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el at., 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)

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el at., 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)

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el at., Nuclear distribution of claudin-2 increases cell proliferation in human lung adenocarcinoma cells.In Biochim Biophys Acta on 2014 Sep by Akira Ikari, Ryo Watanabe et al..PMID: 24907662, , (2014)

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el at., EEN regulates the proliferation and survival of multiple myeloma cells by potentiating IGF-1 secretion.In Biochem Biophys Res Commun on 2014 May 2 by Er-Wen Huang , Sheng-Jiang Xue et al ..PMID: 24704450, , (2014)

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el at., The reversal effect of Ginsenoside Rh2 on drug resistance in human colorectal carcinoma cells and its mechanism. In Hum Cell.On 2018 Jul by Liu GW, Liu YH et al..PMID:29582366, , (2018)

PMID:29582366

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