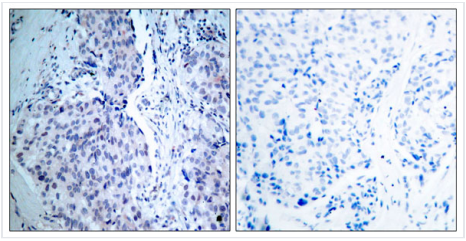
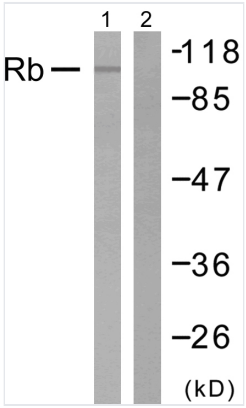
RB1 Antibody

PRODUCT OVERVIEW

Product Name	Rb (RB1), Antibody
Full Product Name	Rb (Ab-807) Antibody
Product Gene Name	anti-RB1 antibody
Species Reactivity	Human, Mouse, Rat
Form/Format	In phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity	Rb (Ab-807) antibody detects endogenous levels of total Rb protein.
Preparation and Storage	Store at-20 degree C for 1 year
Molecular Weight	106,159 Da
OMIM	109800
3D Structure	ModBase 3D Structure for P06400
Immunogen	The antiserum was produced against synthesized non-phosphopeptide derived from human Rb around the phosphorylation site of serine 807 (Y-I-SP-P-L).
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-RB1 antibody	Western Blot (WB), Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-RB1 antibody	WB: 1:500~1:1000 IHC: 1:50~1:100 ELISA: 1:20000
Related Product Information for anti-RB1 antibody	MBS8510274 is an antibody targeting RB1. Also known as Rb (Ab-807) Antibody. Reactive in Human, Mouse, Rat.
Product References and Citations for anti-RB1 antibody	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.
Other Notes	Small volumes of anti-RB1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunohistochemistry (IHC) of anti-RB1 antibody
Peptide-+ Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using Rb (Ab-807) antibody.



Western Blot (WB) of anti-RB1 antibody
Western blot analysis of extracts from MOLT cells, using Rb (Ab-807) antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RB1. It may not necessarily be applicable to this product.

NCBI GI #	108773787
NCBI GeneID	5925
NCBI Accession #	NP_000312.2
UniProt Primary Accession #	P06400
UniProt Secondary Accession #	P78499; Q5VW46; Q8IZL4; A8K5E3
UniProt Related Accession #	P06400
GenBank Nucleotide #	NM_000321.2
NCBI Official Full Name	retinoblastoma-associated protein
NCBI Official Synonym Full Names	RB transcriptional corepressor 1
NCBI Official Symbol	RB1
NCBI Official Synonym Symbols	RB; pRb; OSRC; pp110; p105-Rb; PPP1R130
UniProt Protein Name	Retinoblastoma-associated protein
UniProt Synonym Protein Names	p105-Rb; pRb; Rb; pp110
Protein Family	Retinoblastoma-associated protein
UniProt Gene Name	RB1
UniProt Synonym Gene Names	Rb
NCBI Protein Information	retinoblastoma-associated protein
NCBI Summary for RB1	The protein encoded by this gene is a negative regulator of the cell cycle and was the first tumor suppressor gene found. The encoded protein also stabilizes constitutive heterochromatin to maintain the overall chromatin structure. The active, hypophosphorylated form of the protein binds transcription factor E2F1. Defects in this gene are a cause of childhood cancer retinoblastoma (RB), bladder cancer, and osteogenic sarcoma. [provided by RefSeq, Jul 2008]

UniProt Comments for RB1	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 (). 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.
Research Articles on RB1	**1.** Loss of Rb immunolabeling and KRAS mutation are promising molecular markers of the therapeutic response to platinum-based chemotherapy for pancreatic neuroendocrine neoplasm grade-3 (PanNEN-G3), and Rb for neuroendocrine tumor with G3 (NET-G3).
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