

Product Name: Phospho-Retinoblastoma (S807) (4H3)
Rabbit Monoclonal Antibody
Catalog #: AMRe05995



Summary

Production Name	Phospho-Retinoblastoma (S807) (4H3) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,IHC-P,ICC/IF,IF-P
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type
Buffer	preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	RB1
Alternative Names	P105-RB; PP105; PP110; RB-1; RB1; Retinoblastoma-associated protein;
Gene ID	5925.0
SwissProt ID	P06400.

Application

Dilution Ratio	WB 1:1000, IHC-P/IF-P 1:200-1:500, ICC/IF 1:200-1:500
Molecular Weight	106kDa

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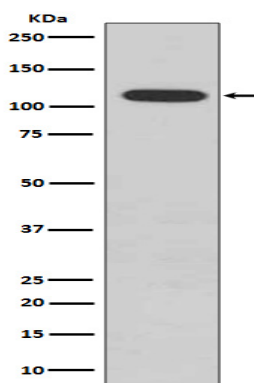


Background

Retinoblastoma (RB) is an embryonic malignant neoplasm of retinal origin. It almost always presents in early childhood and is often bilateral. Spontaneous regression ('cure') occurs in some cases. Tumor suppressor that is a key regulator of the G1/S transition of the cell cycle (PubMed: [10499802](http://www.uniprot.org/citations/10499802)). The hypophosphorylated form binds transcription regulators of the E2F family, preventing transcription of E2F-responsive genes (PubMed: [10499802](http://www.uniprot.org/citations/10499802)). Both physically blocks E2Fs transactivating domain and recruits chromatin-modifying enzymes that actively repress transcription (PubMed: [10499802](http://www.uniprot.org/citations/10499802)). Cyclin and CDK-dependent phosphorylation of RB1 induces its dissociation from E2Fs, thereby activating transcription of E2F responsive genes and triggering entry into S phase (PubMed: [10499802](http://www.uniprot.org/citations/10499802)). RB1 also promotes the G0-G1 transition upon phosphorylation and activation by CDK3/cyclin-C (PubMed: [15084261](http://www.uniprot.org/citations/15084261)). 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).

Research Area

Image Data



Western blot analysis of Phospho-Retinoblastoma (S807) expression in K562 cell lysate.



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Note

For research use only.