

Product datasheet

Recombinant Human Rb protein ab83205

画像数 1

製品の概要

製品名 Recombinant Human Rb protein
タンパク質長 Full length protein

法規制情報

カルタヘナ法

製品の詳細

由来 Recombinant
由来 Baculovirus

アミノ酸配列

生物種 Human

配列

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TPRKTAATAA AAAAEPAPP PPPPEEDPE
QDSGPEDLPL VRLEFEETEE PDFALCQKL
KIPDHVRERA WLTWEKVSSV DGVLGGYIQK
KKELWGICIF IAAVDLDEMS FTFTELQKNI
EISVHKFFNL LKEIDTSTKV DNAMSRLKK
YDVLFALFSK LERTCELIYL TQPSSSISTE
INSALVLKVS WITFLLAKGE VLQMEDDLVI
SFQLMLCVLD YFIKLSPPML LKEYKTAVI
PINGSPRTPR RGQNRSARIA KQLENDTRII
EVLCKEHECN IDEVKNVYFK NFIPFMNSLG
LVTSNGLPEV ENLSKRYEEI YLKNKDLAR
LFLDHDKTLQ TDSIDSFETQ RTPRKSNDLDE
EVNVIPPHTP VRTVMNTIQQ LMMILNSASD
QPENLISYF NNCTVNPKE ILKRVKDIGY
IFKEKFAKAV GQGCVEIGSQ RYKLGVRLLY
RVMESMLKSE EERLSIQNFS KLLNDNIFHM
SLLACALEVV MATYSRSTSQ NLDSGTDLSF
PWILNVLNLK AFDYKVIIES FIKAEGNLTR
EMIKHLERCE HRIMESLAWL SDSPLFDLIK
QSKDREGPTD HLESACPLNL PLQNNHTAAD
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MYLSPVRS PK KKGSTTRVNS TANAETQATS
AFQTQKPLKS TSLSLFYKKV YRLAYLRLNT
LCERLLSEHP ELEHIIWTLF QHTLQNEYEL
MRDRHLDQIM MCSMYGICKV KNIDLKFKII
VTAYKDLPHAVQETFKRVLIIKEEEYDSIIV
FYNSVFMQRL KTNILQYAST RPPTLSPIPH
IPRSPYKFPS SPLRIPGGNI YISPLKSPYK
ISEGLPTPTK MTPRSRILVS IGESFGTSEK
FQKINQMVCN SDRVLKRS AE GSNPPKPLKK
LRFDIEGSDE ADGSKHLPGE SKFQQKLAEM
TSTRTRMQKQ KMNDSMDTSN KEEK

分子量 108 kDa
領域 1 to 928

特性

Our [Abpromise guarantee](#) covers the use of **ab83205** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション SDS-PAGE
Western blot
Other
EMSA

精製度 > 95 % SDS-PAGE.
Purified by affinity and FPLC chromatography.

製品の状態 Liquid

前処理および保存

保存方法および安定性 Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.
Preservative: None
Constituents: 20% Glycerol, 20mM Tris HCl, 1mM DTT, 0.2mM EDTA, pH 8

関連情報

機能 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.

組織特異性

Expressed in the retina.

関連疾患

Childhood cancer retinoblastoma

Bladder cancer

Osteogenic sarcoma

配列類似性

Belongs to the retinoblastoma protein (RB) family.

ドメイン

The Pocket domain binds to the threonine-phosphorylated domain C, thereby preventing interaction with heterodimeric E2F/DP transcription factor complexes.

翻訳後修飾

Phosphorylated by CDK6 and CDK4, and subsequently by CDK2 at Ser-567 in G1, thereby releasing E2F1 which is then able to activate cell growth. Dephosphorylated at the late M phase. SV40 large T antigen, HPV E7 and adenovirus E1A bind to the underphosphorylated, active form of pRb. Phosphorylation at Thr-821 and Thr-826 promotes interaction between the C-terminal domain C and the Pocket domain, and thereby inhibits interactions with heterodimeric E2F/DP transcription factor complexes. Dephosphorylated at Ser-795 by calcineruin upon calcium stimulation. CDK3/cyclin-C-mediated phosphorylation at Ser-807 and Ser-811 is required for G0-G1 transition. Phosphorylated by CDK1 and CDK2 upon TGFB1-mediated apoptosis.

N-terminus is methylated by METTL11A/NTM1 (By similarity). Monomethylation at Lys-810 by SMYD2 enhances phosphorylation at Ser-807 and Ser-811, and promotes cell cycle progression. Monomethylation at Lys-860 by SMYD2 promotes interaction with L3MBTL1. Acetylation at Lys-873 and Lys-874 regulates subcellular localization, at least during keratinocytes differentiation.

細胞内局在

Nucleus.

画像



Western blot - Recombinant Human Rb protein
(ab83205)

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