

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse/Rat                                                                     |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human RBBP-4 in direct ELISAs and Western blots.                            |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 968701                                   |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                          |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human RBBP-4<br>Ala2-Ser425<br>Accession # 9028 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm     |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                        |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                     |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

RBBP4 (Retinoblastoma-Binding Protein 4; also RbAp48 and CAF-1) is a 48-56 kDa member of the WD Repeat RBAP46/48/MSI1 family of proteins. It is ubiquitously expressed, and acts as a transcriptional repressor. At the start of G1 of the cell cycle, Rb (retinoblastoma protein) normally associates with an E2F transcription complex on E2F responsive genes, blocking E2F activity. At the appropriate time, Rb is phosphorylated, causing its dissociation from E2F and resulting in E2F activation. Dephosphorylated Rb apparently mediates transcriptional repression by recruiting a histone deacetylase (HDAC), followed by HDAC binding to RBBP4. RBBP4, being a histone-binding protein, now brings histones plus HDACs together, resulting in histone deacetylation and gene silencing. Human RBBP4 is 425 amino acids (aa) in length. It contains six WD repeats (aa 122-403), two N-terminal acetylation sites, and two serine phosphorylation sites at positions 110 and 146. There are at least two isoform variants. One contains a six aa substitution for aa 405-425, while another utilizes an alternative start site at Met36. Human and mouse RBBP4 are identical in aa sequence.

## PRODUCT SPECIFIC NOTICES

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