

# AB-PN724

## RB-pS249+pT252 Antibody

Phosphosite-specific rabbit polyclonal antibody for Rb (RB1)



**KINEXUS**

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### Target Protein

|                                |                                     |
|--------------------------------|-------------------------------------|
| <b>Protein Name Long:</b>      | Retinoblastoma-associated protein 1 |
| <b>Protein Alias:</b>          | P105-Rb; Pp110; PRb                 |
| <b>UniProt ID:</b>             | P06400                              |
| <b>Protein Molecular Mass:</b> | 106,159 Da (928 AA)                 |

### Immunogen

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Antibody Immunogen Source:</b>      | Synthetic phosphopeptide patterned after human RB1                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Antibody Immunogen Sequence:</b>    | ING(pS)PR(pT)PRRG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Antibody Immunogen Description:</b> | Corresponds to amino acid residues I246 to G256. S249 and T252 phosphorylation stimulates functional activity of Rb, and induces interaction with E2F1 to inhibit transcription by E2F1. These are major sites of <i>in vivo</i> phosphorylation of Rb based on $\geq 127$ and $\geq 87$ reports, respectively, from high throughput mass spectrometry studies recorded in PhosphoSitePlus. Rb is known to be phosphorylated <i>in vitro</i> at S249 and T252 by CDK1 (CDC2), CDK2, CDK4, CDK6, and p38a MAPK. |
| <b>Antibody Target Type:</b>           | Phosphosite-specific                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Production

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Antibody Host Species:</b>  | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Antibody Type:</b>          | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Antibody Isotype:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Production Method:</b>      | The immunizing peptide was produced by solid phase synthesis on a multi-peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from these animals was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris. |
| <b>Amount:</b>                 | 25 $\mu$ g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Antibody Concentration:</b> | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage Buffer:</b>         | Phosphate buffered saline pH 7.4, 0.05% Thimerosal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage Conditions:</b>     | For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage Stability:</b>      | >2 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Applications

|                                       |                                                                              |
|---------------------------------------|------------------------------------------------------------------------------|
| <b>Product Use:</b>                   | Western blotting   Antibody microarray                                       |
| <b>Antibody Dilution Recommended:</b> | 2 µg/ml for immunoblotting                                                   |
| <b>Antibody Species Reactivity:</b>   | Human   Chimpanzee   Rhesus macaque   Dog   Rat   Mouse   Platypus   Chicken |

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

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