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# Product datasheet for AP03037BT-N

## Phosphotyrosine Rabbit Polyclonal Antibody

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Applications:** | WB |
| **Recommended Dilution:** | **Western blot** (7). |
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Immunogen:** | Phosphotyrosine conjugated to KLH |
| **Specificity:** | Recognizes proteins and peptides that contain phosphorylated Tyrosine residues. Does**not** cross-react with Phosphoserine or Threonine. |
| **Formulation:** | PBS<br>Label: Biotin<br>State: Aff - Purified<br>State: Liquid purified Ig fraction<br>Preservative: 0.01% Sodium Azide |
| **Concentration:** | lot specific |
| **Purification:** | Affinity Chromatography |
| **Conjugation:** | Biotin |
| **Storage:** | Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing. |
| **Stability:** | Shelf life: one year from despatch. |

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**Background:**

Protein phosphorylation is an important posttranslational modification that serves many key functions to regulate a protein's activity, localization, and protein-protein interactions. Phosphorylation is catalyzed by various specific protein kinases, which involves removing a phosphate group from ATP and covalently attaching it to a recipient protein that acts as a substrate. Most kinases act on both serine and threonine; others act on tyrosine, and a number (dual specificity kinases) act on all three. Because phosphorylation can occur at multiple sites on any given protein, it can therefore change the function or localization of that protein at any time (1).

Changing the function of these proteins has been linked to a number of diseases, including cancer, diabetes, heart disease, inflammation and neurological disorders (2-4).

In particular, the phosphorylation of tyrosine is considered one of the key steps in signal transduction and regulation of enzymatic activity (5). Phosphotyrosine can be detected through specific antibodies, and are helpful in facilitating the identification of tyrosine kinase substrates (6).