

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                           |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human BTK when phosphorylated at Y551.                                  |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2A</sub> Clone # 797837                               |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                      |
| <b>Immunogen</b>                                                                                                                                                                                        | Phosphopeptide containing the human BTK Y551 site                               |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

Bruton tyrosine kinase (Btk) is a 75 kDa cytoplasmic protein tyrosine kinase that is widely expressed in hematopoietic cells. Btk is required for B cell receptor signaling and B cell development. Defects in Btk result in X-linked agammaglobulinemia which is characterized by a severely decreased level of circulating antibodies. Like other Tec family kinases, Btk contains a Pleckstrin homology domain, a Tec homology domain, an SH3 domain, an SH2 domain, and a protein kinase domain. Association of the Btk SH2 domain with the B cell linker protein (BLNK) is required for the activation of PLCγ by Btk. Btk can be activated by Lyn or Syk phosphorylation of Tyr551 within the catalytic domain. Within aa 546 - 556, human Btk shares 100% aa sequence identity with mouse and rat Btk.

#### PRODUCT SPECIFIC NOTICES

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