

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human p67phox in direct ELISAs and Western blots.                                            |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                 |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                            |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human p67phox<br>Lys355-Val526 (His389Gln)<br>Accession # P19878 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 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

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <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

P67phox (67 kDa phagocyte oxidase; also NCF2 and NADPH oxidase activator 2) is a 67-70 kDa cytosolic member of the NCF2/NOXA1 family of proteins. It is expressed in multiple cell types, including B cells, endothelial cells, phagocytic cells such as neutrophils and macrophages and, to some degree, fibroblasts. Upon phagocytosis, phagocytes generate superoxide for the purpose of killing ingested microbes. This occurs through the formation and activation of a complex termed NADPH oxidase, which consists of membrane-associated cytochrome b558, plus Rac GTPase and three SH3 domain-containing components, p47phox and a p67phox:p40-phox dimer. Human p67phox is 526 amino acids (aa) in length. It contains two TPR repeats that participate in scaffold formation (aa 11-98), an SH3 domain (aa 240-299), an OPR motif that regulates PB1 interactions (aa 351-429), and a C-terminal SH3 domain (aa 457-516). There is one splice variant that shows a deletion of aa 231-293, and multiple point mutations along the length of the molecule. Over aa 355-526, human p67phox shares 76% aa identity with mouse p67phox.

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