

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects endogenous human, mouse and rat ATG3 in Western blots.                                                                                                                                                                                                              |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human ATG3<br>Met1-His287<br>Accession # Q9NT62                                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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>Immunocytochemistry</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

ATG3 (autophagy-related protein 3; also APG3-like and PC3-96) is a ubiquitous 45 kDa member of the ATG3 family of proteins. It functions as an E2-like enzyme during the initial stages of autophagosome formation by catalyzing the transfer of ATG7-bound ATG8 (known as LC3, GATE16 and GABA-RAP in mammals) to phosphatidylethanolamine, critical for autophagy. Human ATG3 is 314 amino acids in length and contains an active site at Cys264 that forms a thiol ester bond with the C-terminal Gly of ATG8. There are multiple potential isoform variants. Three show a 22, 28 and 35 aa substitution for aa 289-314, respectively, while a fourth shows an alternate start site at Met88 that may be accompanied by one of the afore mentioned substitutions. Over aa 1-287, human ATG3 shares 97.9% aa identity with mouse ATG3.

#### PRODUCT SPECIFIC NOTICES

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