

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse/Rat                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human, mouse, and rat NEDD4 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 NEDD4<br>Asn630-Gly768<br>Accession # P46934 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 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

NEDD4 (Neural precursor cell-expressed developmentally down-regulated gene 4-1; also RPF1) is a 115-120 kDa member of the HECT E3 ubiquitin ligase family of proteins. The NEDD4 gene is widely expressed, and serves as a complement to a related gene product termed NEDD4-2/NEDD4L. Both molecules ubiquitinate multiple proteins. NEDD4-1 acts preferentially on PTEN, tumor suppressors and endocytic proteins, while NEDD4-2 acts preferentially on membrane transporters. Human NEDD4-1 is 900 amino acids (aa) in length. It contains one PKC region (aa 20-124), four WW domains (aa 196-505) and one E3 HECT domain (aa 543-897). Caspase cleavage after Asp197 generates a 95 kDa C-terminal, and smaller but variable sized N-terminal fragment. There are multiple splice forms. Two show a 516 aa substitution for aa 1-169 and 1-97, respectively, while a third shows the latter substitution coupled to a deletion of aa 170-185. Over aa 211-349, human NEDD4-1 shares 83% aa identity to mouse NEDD4-1 and less than 25% aa identity with human NEDD4-2.

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