

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse/Rat                                                                     |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human, mouse, and rat UBR5 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 UBR5<br>Met1-Asp227<br>Accession # O95071 |
| <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                        |
| *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

UBR5 (Ubiquitin protein ligase E3 component n-recognin 5; also HYD and EDD) is a 280-300 kDa member of the HECT E3 family of ubiquitin (Ub) protein ligases. It is ubiquitously expressed, and found in both the cytoplasm and nucleus of cells. In addition to ubiquitination, UBR5 is functionally diverse. In the cytoplasm, it interacts with, and stabilizes APC, thereby increasing its concentration. In the nucleus (of smooth muscle cells), it stabilizes myocardin, a transcription factor that activates smooth muscle-specific genes. Perhaps its best known function involves DNA checkpoint activation. Following DNA damage, UBR5 promotes the phosphorylation of CHK2, which arrests the cell cycle at G2/M. Human UBR5 is 2799 amino acids (aa) in length and contains a Ub-associated domain (aa 180-215), two NLS's (aa 502-517 and 630-635), one UBR-type zinc finger region (aa 1177-1244), a PABC region (aa 2377-2454) and a HECT domain with a Ub-binding Cys residue (aa 2462-2799). Over aa 1-227, human UBR5 shares 98% aa identity with mouse UBR5.

#### PRODUCT SPECIFIC NOTICES

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