

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects human, mouse and rat TRRAP in Western blots. Detects recombinant human TRRAP in direct ELISAs.                                                                                                                                                                      |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human TRRAP<br>Asn3610-Leu3859, predicted<br>Accession # Q9Y4A5                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 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.

**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

TRRAP (Transformation/transcription domain-associated protein; also PAF350/400 and STAF40) is a 400-450 kDa member of the TRA1 subfamily, PI3/PI4 kinase family, ATM superfamily of molecules. It is a ubiquitously expressed nuclear protein that functions as a promoter of gene transcription. In particular, the activity of the E2F transcription factor family is regulated by the degree of histone acetylation. Deacetylation inhibits E2F-mediated transcription, while acetylation promotes gene transcription. TRRAP promotes histone acetylation by serving as a positive modulator/cofactor for GCN5 acetyltransferase activity. TRRAP also acts independently of GCN5. It serves as a recruiter for Skp1, a ubiquitin ligase that ubiquitates chromatin-bound  $\beta$ -catenin, leading to a downregulation of Wnt-signaling activity. Human TRRAP is 3859 amino acids (aa) in length. It contains one Pro-rich region (aa 485-526), an NLS (aa 2047-2062), two FAT domains (aa 2704-3275 and 3827-3859) and a nonenzymatic PI3/PI4 kinase domain (aa 3528-3826). There are multiple potential isoform variants. They show various combinations of a deletion involving aa 1493-1510, an Ala substitution for aa 3001-3012, a 119 aa substitution for aa 3784-3859, and an 18 aa insertion after Asp3287. Over aa 3610-3859, human TRRAP shares 99% aa identity with mouse TRRAP.

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