

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human TDRD1 in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant mouse TDRD1 is observed and less than 1% cross-reactivity with recombinant human TDRKH is observed.                                           |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human TDRD1<br>Asn837-Lys968<br>Accession # Q9BXT4                                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 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

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

TDRD1 (Tudor domain containing protein 1; also CT41.1) is a 120-140 kDa member of the Tudor family of proteins. It is expressed in spermatocytes and spermatids, and forms part of an RNA-silencing complex that regulates gene expression. TDRD1, through its Tudor and MYND domains, binds methylated PIWI (P-element-induced wimpy testis) protein and PIWI-interacting RNA loading factor, respectively. This serves to promote the recruitment of germline-specific small RNAs into a PIWI ribonucleoprotein complex. Human TDRD1 is 1180 aa in length. It contains one MYND-type Zn finger region (aa 170-206), and four methyl-binding Tudor domains (aa 312-1048). There are four potential splice variants with predicted molecular weights ranging between 79 kDa and 133 kDa. One contains an alternate start site at Met404, another contains an alternative start site at Met22, accompanied by deletions of aa 554-610 and 775-831, a third shows a 10 aa substitution for Ser1180, while a fourth contains deletions of aa 328-375, 554-610 and 1059-1134. Over aa 837-968, human TDRD1 shares 66% aa identity with mouse TDRD1.

#### PRODUCT SPECIFIC NOTICES

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