

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                         |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Tankyrase 1 in direct ELISAs and Western blots.                                 |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                     |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Tankyrase 1<br>Ala943-Gly1039<br>Accession # O95271 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 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

TNKS (Tankyrase; also TRF1-interacting, ANKYrin-Related ADP-ribose polymerase and TNKS1, TANK1 and PARP5A) is a 165-170 kDa member of the PARP family of proteins. It is ubiquitously expressed and participates in at least two critical cellular functions. First, via ribosylation activity, it inhibits TRF1, a regulator of telomere length. This promotes chromosomal lengthening. Second, it activates the Wnt signaling pathway by promoting Axin-1 and -2 degradation, resulting in  $\beta$ -catenin activation. Human TNKS is 1327 amino acids (aa) in length. It contains polyHis, Pro and Ser regions (aa 9-134), 15 ankyrin repeats (aa 215-934), one SAM motif (aa 1030-1089) and a PARP catalytic domain (aa 1112-1317). There are three potential splice variants. One shows a three aa substitution for aa 640-1327, another contains a 43 aa substitution for aa 1-327, while a third possesses a 20 aa substitution for aa 300-327. Over aa 943-1039, human TNKS shares 97% aa identity with mouse TNKS.

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