

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human RNF8 in direct ELISAs and Western blots. In direct ELISAs, approximately 100% cross-reactivity with recombinant mouse RNF8 is observed.                                                                                                                       |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human RNF8<br>Met1-Val124<br>Accession # O76064                                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 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

RNF8 (RING [really interesting gene] finger protein 8; also E3 ubiquitin-protein ligase RNF8) is a 55-58 kDa member of the RNF8 family of proteins. It is ubiquitously expressed, and serves as an E3 ubiquitin ligase. RNF8 is recruited to DNA double-strand breaks by phosphoMDC1, where it promotes the ubiquitination of histones H2A and H2AX. This, in turn, may result in the recruitment of 53BP1, a scaffold protein that holds DNA damage response elements. Human RNF8 is 485 amino acids (aa) in length. It contains one forkhead associated domain (aa 38-92), a Gln-rich segment (aa 276-345), and one Zn-finger region (aa 403-441). There is one utilized phosphorylation site at Ser157. Two potential isoforms are reported. One shows an 18 aa substitution for aa 81-485, while another possesses a 36 aa substitution for aa 413-485. RNF8 apparently undergoes ubiquitination, generating multiple isoforms that run at 62-72 kDa in SDS-Page. Over aa 1-124, human RNF8 shares 74% aa identity with mouse RNF8.

## PRODUCT SPECIFIC NOTICES

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