

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects recombinant mouse RNF168 and recombinant human RNF168 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse RNF168 Asn423-Arg565 Accession # Q80XJ2
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	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.
Immunocytochemistry	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

RNF168 (RING [really interesting new gene] finger protein 168; also E3 ubiquitin-protein ligase RNF168) is a 65 kDa (predicted) member of the RNF168 family of proteins. It is ubiquitously expressed, and serves as an E3 ubiquitin ligase. Following DNA damage, RNF8 is recruited to DNA double-strand breaks by phosphoMDC1. Here, RNF8 first monoubiquitinates histone H2A, and then promotes RNF168 recruitment. RNF168 now acts as an additional ubiquitinase, promoting multiple ubiquitinations plus the recruitment of 53BP1, a scaffold protein that holds DNA damage response elements. Mouse RNF168 is 565 amino acids (aa) in length. It contains one Zn-finger/RING domain (aa 16-55) plus two ubiquitin-interacting MIU motifs (aa 168-191 and 438-461). There are three potential Ser/Thr phosphorylation sites. Two potential isoform variants are reported. One shows an alternative start site at Met20, while a second possesses a two aa extension at the N-terminus coupled to a 13 aa substitution for aa 343-565. Over aa 423-565, mouse RNF168 shares 79% and 65.5% aa sequence identity with rat and human RNF168, respectively. Over aa 423-466, mouse RNF168 shares 98% aa sequence identity with human RNF168.

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