

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse ZNRF3 in direct ELISAs.
<b>Source</b>	Monoclonal Rabbit IgG Clone # 2035A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse ZNRF3 Lys53-Met216 Accession # Q5SSZ7
<b>Conjugate</b>	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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.

**Immunocytochemistry** 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

ZNRF3 (Zinc/RING Finger protein 3) is a member of the ZNRF3 family of type 1 transmembrane ubiquitin ligases (1). Mature mouse ZNRF3 consists of a 163 amino acid (aa) extracellular domain (ECD) with a protease associated (PA) domain fold, a short transmembrane segment, and a 675 aa cytoplasmic tail that contains a RING-type zinc finger with E3 ubiquitin ligase activity. Within the ECD, mouse and human ZNRF3 share 98% sequence identity. ZNRF3 is co-expressed on the cell surface with the homologous protein RNF43. Both proteins serve to inhibit the Wnt signaling pathway through the ubiquitination of LRP6 and a majority of the Frizzled family of Wnt receptors (1, 4, 6). ZNRF3 ubiquitin ligase activity is regulated jointly by R-Spondin and its cell surface receptors, Lgr4, 5, and 6 (2). The R-Spondin-Lgr complex binds to and facilitates the removal of the ZNRF3 from the plasma membrane, resulting in an enhancement of Wnt signaling (3, 4). Conversely, ZNRF3 can antagonize R-Spondin enhanced Wnt signaling (3, 5). ZNRF3 is highly expressed in crypt stem cells of the intestine where it modulates Wnt-induced cell proliferation to control the turnover of intestinal epithelial cells (6). ZNRF3 expression is down-regulated in gastric carcinomas, and ZNRF3 mutations are linked to carcinomas of the gastric tract, pancreas, liver, and ovary (7-10).

## PRODUCT SPECIFIC NOTICES

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