Mouse ZNRF3 Alexa Fluor® 350-conjugated Antibody

Monoclonal Rabbit IgG Clone # 2035A
Catalog Number: FAB8328U
100 µg

DESCRIPTION

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

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

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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