Mouse PRDC/GREM2 Alexa Fluor® 350-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 377407

Catalog Number: FAB2069U

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse PRDC/GREM2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse (rm) DAN, rmCerberus, rmGremlin, or rmCoco is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 377407
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse PRDC/GREM2 Arg22-Gln168 Accession # O88273
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.*

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

PRDC (protein related to DAN and Cerberus), also called GREM2 (Gremlin-2), is a secreted cysteine knot-containing BMP antagonist belonging to the *Cerberus/DAN (CAN)* family. Mammalian *CAN* family members, including Gremlin, Dan, Cerberus, COCO, SOST, and USAG-1, have the conserved 6 cysteine residues that form a cysteine knot, and two additional cysteine residues located in the loops of the cysteine knot, which form an additional intrasubunit disulfide bond (1, 2). Some members of this family, including PRDC, have an additional cysteine residue used for dimerization (1, 2). Of all the *CAN* family members, PRDC is most closely related to Gremlin, displaying 52% amino acid (aa) sequence identity. PRDC was first identified in a screen for developmentally regulated genes by gene trapping in embryonic stem cells (3). PRDC expression is detected by *in situ hybridization* in the dorsal edge of the spinal cord at E10.5, in commissural neurons in the caudal part of the spinal cord two days later (3), and in the granulosa cells of selective ovarian follicles (4). In the adult, abundant levels of PRDC are detected by RT-PCR in the mouse ovary, brain, and spleen, and to a lesser degree in the colon, kidney, lung, liver, and uterus (4). PRDC acts as a specific BMP antagonist, binding to and blocking signaling induced by BMP-2 or -4, but not Activin or TGF-β (4). Thus, PRDC expression in the ovary could be involved in follicular development by antagonizing the inhibitory effects of BMPs on FSH stimulation of progesterone (4). Mouse PRDC shows 94% aa sequence identity with human PRDC.

PRODUCT SPECIFIC NOTICES

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