Mouse MESDC2 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF4545N
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MESDC2 in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with human MESDC2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MESDC2 Ala30-Leu224 Accession # Q9ERE7
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.
Immunohistochemistry	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

Mesoderm development candidate gene 2 (MESDC2, Mesd), also known as Boca in drosophila, is a 22 kDa protein that is required for formation of the primitive streak and mesoderm during embryogenesis (1-3). Mature mouse MESDC2 consists of an 83 amino acid (aa) structured central domain with flexible N- and C-terminal regions (4, 5). It shares 89% and 96% aa sequence identity with human and rat MESDC2, respectively. Although Boca lacks 34 aa in the C-terminal region and is only 40% identical with mouse MESDC2, the mouse protein can functionally substitute for Boca in drosophila S2 cells (6). A C-terminal ER retention motif localizes MESDC2 and Boca to the lumen of the endoplasmic reticulum (2, 6, 7). Within the ER, MESDC2 binds to the Wnt co-receptors LRP5 and LRP6 and is required for their proper folding and cell surface expression (2, 5, 8, 9). MESDC2 is therefore important for cellular Wnt responsiveness (9). When added extracellularly, MESDC2 binds to cell surface LRP6, preventing its interaction with the Wnt antagonist Dkk-1. This binding does not, however, trigger LRP6 internalization or alteration of cytoplasmic β-catenin levels (8). An LRP5 mutant associated with high bone mass does not interact with MESDC2 (10). MESDC2 itself can be disrupted by a chromosomal translocation occurring in the germ cell tumor, infantile sacrococcygeal teratoma (11).

PRODUCT SPECIFIC NOTICES

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