

# Mouse SF20/MYDGF Alexa Fluor® 488-conjugated Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2562A  
Catalog Number: IC1104G  
100 µg

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                                   |
| <b>Specificity</b>        | Detects mouse SF20/MYDGF in direct ELISAs. Detects human, mouse, and rat SF20/MYDGF in Western blots.                                                                                                                                                                                   |
| <b>Source</b>             | Recombinant Monoclonal Rabbit IgG Clone # 2562A                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Protein A or G purified from cell culture supernatant                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived mouse SF20/MYDGF<br>Val25-Leu166<br>Accession # Q9CPT4                                                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                                                     |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.<br><br>*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.

|                                                 | <b>Recommended Concentration</b> | <b>Sample</b>                                                                       |
|-------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------|
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells  | Mouse Tramp-C1 cell line fixed with paraformaldehyde and permeabilized with saponin |

## 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> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

## BACKGROUND

Myeloid-Derived Growth Factor, or MYDGF, is a Bone marrow-derived monocyte protein, and it is correlated with enhanced metabolic activity, suppression of apoptosis, and stimulation of cell proliferation (1). MYDGF is expressed predominantly in inflammatory cells, such as monocytes and macrophages (1). Up-regulation of MYDGF expression was also found during adipocyte differentiation (2). Expression of MYDGF was induced in the circulation and heart tissue after myocardial infarction. It promotes cardiac myocyte survival by stimulating endothelial cell proliferation through a MAPK1/3-, STAT3- and CCND1-mediated signaling pathway, and inhibits cardiac myocyte apoptosis in a PI3K/AKT-dependent signaling pathway (1). MYDGF was found over-expressed in approximately two-thirds of Hepatocellular Carcinoma (HCC) tissues, and its expression was significantly positively correlated with that of alpha-fetoprotein (AFP) (3). In HCC, MYDGF could regulate cell proliferation through activating Akt/mitogen-activated protein kinase pathways (3). Mouse MYDGF shares 92% amino acid sequence identity with both human and rat MYDGF. Intriguingly, virtually all homologs of MYDGF have a C-terminal putative ER retention sequence BXEL (B: Arg, His, or Lys; X: variable residue; E: Glu; L: Leu), which has the potential to retain human MYDGF and its homologs in the ER, whereas truncated MYDGF without BXEL is secreted from the cell (4). However, the functions of these different forms remain unclear.

### References:

1. Korf-Klingebiel, M. *et al.* (2015) *Nat. Med.* **10**:3778.
2. Wang, P. *et al.* (2004) *Cell. Mol. Life Sci.* **61**:2405.
3. Sunagozaka, H. *et al.* (2011) *Int. J. Cancer* **129**:1576.
4. Bortnov, V. *et al.* (2018) *J. Biol. Chem.* **293**:13166.

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.