

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse METRNL in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 829535
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant mouse METRNL Gln46-Glu311 Accession # Q8VE43
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *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.

	Recommended Concentration	Sample
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Neuro-2A mouse neuroblastoma cell line

#### 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

Meteorin-like protein (METRNL) is a 311 amino acid (aa) protein that shows 45% homology with Meteorin (in mouse). Meteorin itself is a secreted 30 kDa protein that is expressed in glial and neuronal cells and their precursors during development and in the adult (1-3). In the adult Meteorin is primarily expressed by astrocytes (3). Meteorin promotes neurite outgrowth, glial cell differentiation, and neuronal survival following excitotoxic injury (2-5). It also inhibits sprouting angiogenesis and promotes blood vessel maturation (1). Mouse Meteorin-like protein is synthesized with a 45 amino acid (aa) signal peptide and is selectively expressed in the otic vesicle during inner ear development (6, 7). Mature mouse Meteorin-like protein shares 79% and 98% aa sequence identity with human and rat Meteorin-like protein, respectively. Alternate splicing generates an additional isoform that lacks the N-terminal 82 amino acids including the signal peptide. R&D Systems in-house testing indicates that Meteorin-like protein enhances the outgrowth of neurites from cultured mouse cortical neurons. The promoter region of the METRNL gene contains a recognition site for the Pax2, Pax5, and Pax8 transcription factors, and Pax2 binds specifically to this region (7). METRNL is the only gene found within the terminus of the human chromosome 17 q-arm which can be deleted in the rare Ring 17 syndrome (8).

#### References:

1. Park, J.A. *et al.* (2008) *Glia* **56**:247.
2. Jorgensen, J.R. *et al.* (2009) *J. Mol. Neurosci.* **39**:104.
3. Lee, H.S. *et al.* (2010) *J. Cell Sci.* **123**:1959.
4. Nishino, J. *et al.* (2004) *EMBO J.* **23**:1998.
5. Jorgensen, J.R. *et al.* (2011) *Neurobiol. Dis.* **41**:160.
6. Accession # Q8VE43.
7. Ramalison, M. *et al.* (2008) *Genome Biol.* **9**:R145.
8. Surace, C. *et al.* (2009) *Clin. Genet.* **76**:256.

#### 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.