

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Meteorin in direct ELISAs and Western blots.
Source	Monoclonal Rat IgG _{2B} Clone # 347505
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Meteorin isoform 1 Gly22-Asp291 Accession # Q8C1Q4
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.
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

Meteorin, named after meteors because this protein can transform glial cells into cells with elongated tails, is a 30 kDa member of the Meteorin family (1). The secreted protein is also known as glial cell differentiation factor and hypoxia/reoxygenation regulatory factor. Mouse Meteorin is synthesized as a 291 amino acid (aa) precursor with a 21 aa signal sequence and a 270 aa mature chain. Alternative splicing produces two isoforms. Isoform 2 is missing residues 1-164 found in isomer 1, and has a two aa substitution for aa 165-166. Mouse Meteorin shares 81% aa identity with human Meteorin (2). Meteorin is expressed in the central nervous system both during development and in adult mice (2). During development, Meteorin mRNA appears both in the central and peripheral nervous systems with the most prominent levels in neural progenitors, glial progenitors, and cells of the astrocyte lineage. In the adult mouse, Meteorin is detected only in the brain (2). Within the brain, the most prominent expression is found in the cerebellum where it is expressed by glial cells interspersed between Purkinje neurons (2). Meteorin is also detectable in several discrete neuronal populations, such as the superior colliculus, the ocular motor nucleus, the raphe and pontine nuclei, and various thalamic nuclei (2). Functionally, Meteorin plays important roles in both glial cell differentiation and axonal network formation during neurogenesis (1). In addition, when Meteorin is expressed and secreted by perivascular astrocytes, it upregulates thrombospondin-1/-2 to attenuate angiogenesis in the surrounding endothelial cells and to promote vascular maturation (3).

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