

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Metadherin in direct ELISAs.
Source	Monoclonal Rat IgG _{2B} Clone # 754523
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse Metadherin Lys167-Ser297 Accession # Q80WJ7
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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

Metadherin (MTDH; also Lyric and Astrocyte-elevated gene-1/AEG1) is a unique molecule originally discovered to be upregulated in astrocytes following HIV infection. Although its predicted MW is 64 kDa, it runs anomalously at approximately 80 kDa in SDS-Page. It is widely expressed, and appears to be a component of the ER, nucleolus and inner nuclear membrane. Metadherin is reported to promote Akt/PI3 kinase activity, and suppress apoptosis-associated FOXO3A transcription. Mouse Metadherin is a type III (i.e.- a type I with no signal sequence) transmembrane protein 579 amino acids (aa) in length. It contains a luminal N-terminus (aa 1-48) with a 510 aa cytoplasmic C-terminus. There are no identifiable structural motifs, although two poly-Lys segments and two utilized Ser phosphorylation sites exist. Multiple bands at 80 kDa, 75 kDa, 50-55 kDa and 37 kDa are seen for Metadherin on SDS-Page. They may reflect the presence of at least two potential isoform variants that show 1) a deletion of aa 422-457, and 2) an Ile substitution for aa 190-579. Over aa 167-297, mouse Metadherin shares 98% and 97% aa sequence identity with rat and human Metadherin, respectively.

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