

Human/Mouse Metadherin Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF7180

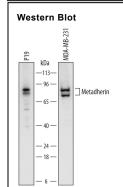
| DESCRIPTION | |
|--------------------|--|
| Species Reactivity | Human/Mouse |
| Specificity | Detects human and mouse Metadherin in direct ELISAs and Western blots. |
| Source | Polyclonal Sheep IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | E. coli-derived recombinant mouse Metadherin Lys167-Ser297 Accession # Q80WJ7 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

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 |
|--------------|------------------------------|-----------|
| Western Blot | 0.25 μg/mL | See Below |

DATA



Detection of Human and Mouse Metadherin by Western Blot. Western blot shows lysates of P19 mouse embryonal carcinoma cell line and MDA-MB-231 human breast cancer cell line. PVDF membrane was probed with 0.25 µg/mL of Sheep Anti-Human/Mouse Metadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7180) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for Metadherin at approximately 80 and 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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Reconstitution Sterile PBS to a final concentration of 0.2 mg/mL

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUNI

MTDH (Metadherin; 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. MTDH is reported to promote Akt/Pl3 kinase activity, and suppress apoptosis-associated FOXO3A transcription. Mouse MTDH 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 MTDH 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 MTDH shares 98% and 97% aa sequence identity with rat and human MTDH, respectively.

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