

## DESCRIPTION

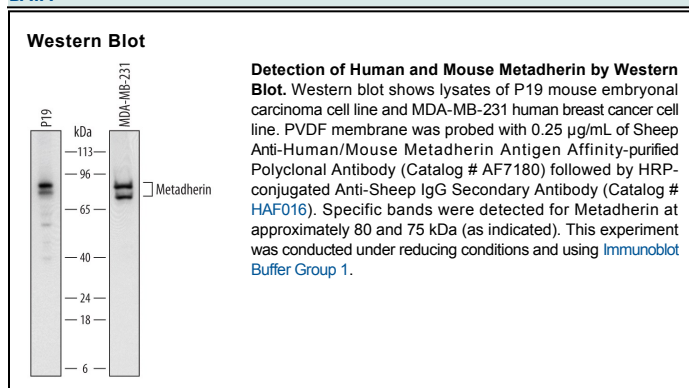
<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse Metadherin in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse Metadherin Lys167-Ser297 Accession # Q80WJ7
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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
<b>Western Blot</b>	0.25 µg/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

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/PI3 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.