



Qty: 100 µg/400 µL

Rabbit anti-Metadherin (Mid)

Catalog No. 40-6500

Lot No.

Rabbit anti-Metadherin (Mid)

FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.484

IMMUNOGEN

Synthetic peptide derived from an internal region of the human, chimpanzee, mouse, and bovine metadherin (Mtdh, metastasis adhesion protein, Lysine-Rich CEACAM1 co-isolated (LYRIC), LYRIC/3D3, astrocyte elevated gene-1 (AEG-1)) protein, which differs from rat by one amino acid

SPECIFICITY

This antibody is specific for an internal region of the metadherin protein. On Western blots, it identifies the target band at ~75 kDa. Bands of unknown origin may be observed at ~25, 45, 50, 65, and 90 kDa in certain experimental samples; some of these may represent multiple isoforms of the protein, consistent with other reports.²⁻³

REACTIVITY

Reactivity has been confirmed with human MDA-MB-231, MDA-MB-468, TF-1, K562, Caco-2, and PC-3 cell lysates, and mouse testis homogenates by Western blotting, and with canine MDCK II cells by immunoprecipitation. Based on amino acid sequence homology, reactivity with chimpanzee, bovine, and rat is expected.

Sample	Western Blotting	Immuno-precipitation
Human	+++	0*
Mouse	+++	ND
Dog	ND	+++
Rat	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

*No reactivity observed under experimental conditions tested.

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 0.5 – 2.0 µg/mL

Immunoprecipitation: 1 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI406500

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BACKGROUND

Metastasis adhesion protein (metadherin, Mtdh), also known as LYsine-RIch CEACAM1 co-isolated (LYRIC), is a novel protein that localizes with the tight junction proteins ZO-1 and occludin in polarized epithelial cells. At the tight junction, it acts not as a structural component, but is rather recruited during the maturation of the tight junction complex.¹ Metadherin is overexpressed in breast cancer tissue and breast tumor xenografts, while much lower levels are expressed in normal breast tissue.² Metadherin binds to lung vasculature, one of the four common sites of breast cancer metastasis, through a C-terminal segment in the extracellular domain; blocking this lung-homing domain with antibodies or inhibiting metadherin with siRNA has been reported to inhibit breast cancer metastasis.²

The calculated molecular weight of metadherin is ~64 kDa. However, antibodies against endogenous Mtdh have been reported to identify multiple isoforms of the protein, consistent with the multiple 3D3/lyric mRNAs detected by Northern blot analysis.²⁻³

REFERENCES

1. Britt DE, et al. *Exp Cell Res* 300(1):134-148, 2004.
2. Brown DM and Ruoslahti E. *Cancer Cell* 5:365-374, 2004.
3. Sutherland HG, et al. *Exp Cell Res* 294(1):94-105, 2004.

RELATED PRODUCTS

<u>Product</u>	<u>Conjugate</u>	<u>Cat. No.</u>
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

<u>Conjugate</u>	<u>ZyMAX™ Goat x Rabbit IgG (H+L)</u>	<u>ZyMAX™ Goat x Mouse IgG (H+L)</u>
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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