



20150116ML

# Anti-Mouse Epigen (#2L47)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

|                  |                            |
|------------------|----------------------------|
| <b>Cat.-no.:</b> | <b>103-M379</b>            |
| Size:            | 100 µg                     |
| Lot. No.:        | According to product label |

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse) immunized with human recombinant ErbB3 (also called Her-3).

## Target Background

|                           |                                      |
|---------------------------|--------------------------------------|
| <b>Synonyms (Target):</b> | Esm1; ESM-1; AV004503; 0610042H23Rik |
|---------------------------|--------------------------------------|

Epigen (EPGN) is an epithelial mitogen that belongs to the EGF superfamily. Mouse Epigen cDNA encodes a 152 amino acid (aa) residue type I transmembrane precursor protein with a 23 aa putative signal peptide, an 86 aa extracellular domain, a 21 aa transmembrane domain and a 22 aa cytoplasmic domain. The extracellular domain (aa 24-109) contains a pattern of six cysteines typical of EGF family proteins. Epigen is among several EGF family proteins that can undergo metalloproteinase cleavage to generate a soluble form. Cleavage of Epigen by TACE/ADAM17 has been demonstrated. The mature, shed form of mouse Epigen (aa 53-103) shares 92%, 96% and 90% aa sequence identity with human, rat and equine Epigen, respectively, and more than 40% aa identity with corresponding regions of TGF $\alpha$  and epiregulin. Epigen mRNA is found in many tissues, but it is mainly expressed in actively proliferating cells within these tissues. For example, Epigen in skin is found mainly in the proliferating root sheath of hair follicles, and transgenic overexpression in the skin causes hyperplasia in sebaceous glands. Epigen is also expressed developmentally and by invasive adenocarcinomas of the breast and prostate. Epigen is strongly mitogenic for epithelial cells and fibroblasts, despite its relatively weak affinity for its main receptor, ErbB1. The mitogenic potential of Epigen is enhanced by its unusually long persistence on the membrane before ubiquitylation and receptor-mediated-depletion.

## Database References Target

|                        |             |
|------------------------|-------------|
| <b>Protein RefSeq:</b> | NP_444317.1 |
| <b>Uniprot ID:</b>     | Q924X1      |
| <b>mRNA RefSeq:</b>    | NM_053087.2 |

## Product Specifications

|                              |                                  |
|------------------------------|----------------------------------|
| <b>Host</b>                  | Rat                              |
| <b>Reactivity against</b>    | Mouse                            |
| <b>Clonality</b>             | Monoclonal Antibody              |
| <b>Clone</b>                 | (#2L47)                          |
| <b>Isotype</b>               | IgG2                             |
| <b>Purification</b>          | Protein G/A chromatography       |
| <b>Antigen</b>               | recombinant mouse protein Epigen |
| <b>Formulation</b>           | lyophilized                      |
| <b>Reconstitution buffer</b> | PBS (sterile)                    |

**Reconstitution:** Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

**Remarks:** This antibody detects specifically mouse Epigen with WB.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

WB

**Recommended usage:**

**WB:** 1:250-1000

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**