

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Epigen in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity with recombinant mouse (rm) Amphiregulin, rmBTC, rmEpiregulin and recombinant human HB-EGF is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Epigen (R&D Systems, Catalog # 1127-EP) Leu53-Ala103 Accession # Q924X1
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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	0.1 µg/mL	Recombinant Mouse Epigen (Catalog # 1127-EP)
Mouse Epigen Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Mouse Epigen Antibody (Catalog # MAB11271)
ELISA Detection	0.1-0.4 µg/mL	Mouse Epigen Biotinylated Antibody (Catalog # BAF1127)
Standard		Recombinant Mouse Epigen (Catalog # 1127-EP)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 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.

BACKGROUND

Epigen is an epithelial mitogen that belongs to the EGF superfamily (1). Mouse Epigen cDNA encodes a 153 amino acid (aa) residue type I transmembrane precursor protein with a 18 aa putative signal peptide, a 92 aa extracellular domain, a 20 aa transmembrane domain and a 22 aa cytoplasmic domain. Expression of mouse Epigen has been detected in multiple tissues including testis, liver and heart. Over the entire protein, mouse Epigen shares from approximately 23% to 33% sequence homology with other EGF family members. The functional internal peptide containing the EGF motif however is more than 40% homologous with that of TGF-α and epiregulin. A human cDNA clone encoding a mouse epigen-like protein has also been identified (2). Similarly to other EGF family proteins, a soluble form of mouse Epigen can most likely be generated from the membrane-bound form by proteolytic cleavage. Although recombinant mouse Epigen has been shown to be mitogenic for fibroblasts (3) and epithelial cells (1), compared to EGF and TGF-α, it is much less potent. The EGF receptor ErbB1 can be activated upon mouse Epigen activation. Nevertheless, involvements of additional ErbB receptors in mouse Epigen signaling have not been ruled out.

References:

1. Strachan, L. *et al.* (2001) J. Biol. Chem. **276**:18265.
2. Accession XM_171078.
3. R&D Systems, unpublished results.

PRODUCT SPECIFIC NOTICES

U.S. Patent No. 6,150,502 used under license from Genesis Research and Development Corporation Limited.