

Recombinant Human Epigen

#R00136

Size: 5 µg/100 µg/500 µg

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.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Epigen is a member of the epidermal growth factor family and is expressed by several tissues, including the testis, liver, heart and in certain tumor cells. It is strongly mitogenic for fibroblasts and epithelial cells, 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. The gene of human Epigen encodes a 154 amino acid (a.a.) residue type I transmembrane precursor glycoprotein which contains a 22 a.a. signal peptide, an 88 a.a. extracellular domain, a 21 a.a. transmembrane domain and a 23 a.a. cytoplasmic domain. By alternative splicing of the gene, Epigen has several isoforms. The mature, shed form of human Epigen (54 – 104a.a.) shares 92 %, 94 % and 94 % a.a. sequence identity with mouse, rat and equine Epigen, respectively.

AA Sequence

AVTVTPPITAQQADNIEGPALKFSLCLEDHNSYCIN
GACAFHHELEKAICRCFTGYTGERCEHLTLTSYA

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	EPG, Epithelial Mitogen
Accession	Q6UW88
GeneID	255324
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 7.9 kDa monomeric protein, containing 72 amino acid residues, which comprises the EGF homologous portion of the Epigen precursor.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 300 ng/ml, corresponding to a

	specific activity of $> 3.3 \times 10^3$ IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/ μ g of rHuEpigen as determined by LAL method.