

Active Recombinant Human EPGN Protein (73 aa)

Cat. No. EPGN-423E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Epigen (rhEpigen) produced in E. coli is a single non-glycosylated polypeptide chain containing 73 amino acids. A fully biologically active molecule, rhEpigen has a molecular mass of 8.1 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	73
Description	Epigen is a cytokine belonging to the Epidermal Growth Factor (EGF) superfamily, which also includes Epiregulin, Amphiregulin, Neuregulin 2-β, and Transforming Growth Factor α. The precursor of Epigen produced in tissues has 154 amino acids, and shares the characteristics of other members of EGF superfamily, including 3 disulfide bonds formed by 6 cysteines. Epigen is present in testis, heart, and liver, and it binds to EGF receptors with a much lower binding affinity than EGF. However, Epigen is more mitogenic than EGF. Epigen achieves its strong mitogenic potency by suppressing ligand-induced receptor inactivation. Unlike EGF, Epigen can also bind to EGF receptors in low pH conditions, helping its recycling. Therefore Epigen has anomalous potency due to its prolonged presence.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 1

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	μg/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of $> 1 \times 10^3$ units/mg.
Molecular Mass	8.1 kDa, observed by reducing SDS-PAGE.
AA Sequence	MAVTVTPPITAQQADNIEGPIALKFSLCLCDHNSY CINGACAFHHELEKAICRCFTG YTGERCEHLTLTSYA
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% by SDS-PAGE analysis.
Storage	Lyophilized recombinant human Epigen (rhEpigen) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhEpigen remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 μg/mL.

GENE INFORMATION

Gene Name	EPGN epithelial mitogen homolog (mouse) [Homo sapiens]
Official Symbol	EPGN
Synonyms	EPGN; epithelial mitogen homolog (mouse); epigen; ALGV3072; EPG; PRO9904; FLJ75542;
Gene ID	255324

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mRNA Refseq	NM_001013442
Protein Refseq	NP_001013460
MIM	618717
UniProt ID	Q6UW88

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