

Overview

Synonyms	EPG, Epithelial mitogen
Description	<p>Epigen is a cytokine belonging to the Epidermal Growth Factor (EGF) superfamily, which also includes Epiregulin, Amphiregulin, Neuregulin 2-2, and Transforming Growth Factor \pm. 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.</p> <p>Recombinant human Epigen (rhEpigen) produced in <i>E. coli</i> 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.</p>
Accession No	Q6UW88-2
Species	Human
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 1 μ g/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 1 \times 10 ³ units/mg.
Sequence	MAVTVTTPPIT AQQADNIEGP IALKFSHLCL EDHNSYICING ACAFHHELEK AICRCFTGYT GERCEHLTLT SYA

Properties

Measured Molecular Weight	8.1 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE analysis.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 μ g/mL.
Endotoxin Level	< 0.2 EU/ μ g, determined by LAL method.
Storage	Lyophilized recombinant human Epigen (rhEpigen) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhEpigen remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Note	For research use only

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