

Rev03
Update: Dec,14,2021

DATASHEET

Epigen, Human

Cat. No.: Z03173

Product Introduction

Species	Human
Protein Construction	Expressed with an N-terminal Met. Epigen (Ala24-Ala95) Accession # Q6UW88-2
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 0.2 EU/ μ g of protein by gel clotting method
Biological Activity	ED ₅₀ < 1.0 μ g/ml, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 1.0 \times 10 ³ units/mg.
Expression System	E. coli
Apparent Molecular Weight	~8.1 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH ₂ O up to 100 μ g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Background

Target Background : 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.

Synonyms : EPG; Epithelial mitogen

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