

Rev03  
 Update: Dec,14,2021

## DATASHEET

# Epigen, Human

Cat. No.: Z03173

## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	Expressed with an N-terminal Met.  <div>Epigen (Ala24-Ala95) Accession # Q6UW88-2</div>
<b>Purity</b>	> 95% as analyzed by SDS-PAGE
<b>Endotoxin Level</b>	< 0.2 EU/μg of protein by gel clotting method
<b>Biological Activity</b>	ED <sub>50</sub> < 1.0 μg/ml, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 1.0 × 10 <sup>3</sup> units/mg.
<b>Expression System</b>	E. coli
<b>Apparent Molecular Weight</b>	~8.1 kDa, on SDS-PAGE under reducing conditions.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	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 <sub>2</sub> O up to 100 μg/ml.
<b>Storage &amp; Stability</b>	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

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.