Epiregulin, human recombinant (rHuEREG)

Catalog No: 08558
Lot No: XXXXX
Source: *E. coli*
Synonyms: EREG, Epiregulin, ER

Background

Epiregulin is part of the EGF family. Epiregulin functions as a ligand of EGFR, as well as a ligand of most members of the ERBB (v-erb-b2 oncogene homolog) family of tyrosine-kinase receptors.Epiregulin is expressed mostly in the placenta and peripheral blood leukocytes and in specific carcinomas of the bladder, lung, kidney and colon. Epiregulin stimulates the proliferation of keratinocytes, hepatocytes, fibroblasts and vascular smooth muscle cells. Epiregulin inhibits the growth of several tumor-derived epithelial cell lines. Human Epiregulin is initially synthesized as a glycosylated 19.0 kDa transmembrane precursor protein, which is processed by proteolytic cleavage to produce a 6.0 kDa mature secreted sequence.

Description

Epiregulin human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 50 amino acids and having a molecular mass of 6 kDa. Epiregulin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Epiregulin was lyophilized from 0.5 mg/ml solution containing 20 mM PBS buffer pH 7.4 and 130 mM sodium chloride.

Solubility

It is recommended to reconstitute the lyophilized Epiregulin in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Epiregulin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Epiregulin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

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MVAQVSITKC SSDMNGYCLH GQCIYLVDMS QNYCRCEVGY TGVRCEHFFL
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Activity

The ED50 was determined by the dose-dependent stimulation of the proliferation of murine Balb/3T3 cells is <2.0 ng/ml, corresponding to a specific activity of >500,000 units/mg.

Usage

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