

Recombinant Human Epiregulin (rh EREG)

Synonyms: ER

Introduction: 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: Recombinant human Epiregulin 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.

Source: *Escherichia Coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: lyophilized from 0.5mg/ml solution containing 20mM PBS pH-7.4 + 130mM NaCl. The samples of 1µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh EREG in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh EREG although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh EREG 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: MVAQVSITKC SSDMNGYCLH GQCIYLVMS QNYCRCEVGY TGVRCEHFFL

Biological 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 ≥ 5×10⁵ units/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11344150
<i>medium</i>	25 µg	Cat.N°	11344154

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