

Recombinant Human EREG protein

Cat. No. EREG-235H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human EREG protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	49
Description	Epiregulin encoded by the EREG gene in humans, is a member of the EGF family of growth factors. This family also includes epidermal growth factor (EGF), transforming growth factor (TGF)-alpha, amphiregulin (ARG), HB (heparin-binding)-EGF, betacellulin, and the various heregulins. Epiregulin is expressed mainly in the placenta and peripheral blood leukocytes and in certain carcinomas of the bladder, lung, kidney and colon. It stimulates the proliferation of keratinocytes, hepatocytes, fibroblasts and vascular smooth muscle cells. Additionally, it 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.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 2 ng/ml, corresponding to a specific activity of $> 5.0 \times 10^5$ IU/mg.

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Molecular Mass	Approximately 5.6 kDa, a single non-glycosylated polypeptide chain containing 49 amino acids.
AA Sequence	VAQVSITKCSSDMNGYCLHGQCIYLVDM SQNYCRCEVGYTGVRCEHFFL
Endotoxin	Less than 1 EU/μg of rHuEpiregulin as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	EREG
Official Symbol	EREG
Synonyms	EREG; epiregulin; proepiregulin; ER;
Gene ID	2069
mRNA Refseq	NM_001432

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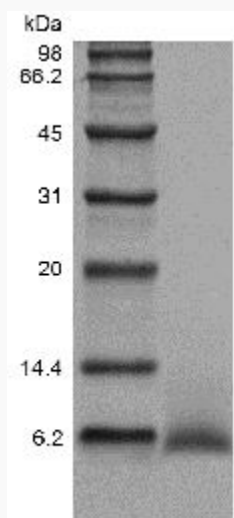
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Protein Refseq NP_001423

MIM 602061

UniProt ID O14944

SDS-PAGE of EREG-
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