Datasheet

Cat. No. P1294

Recombinant Human Epiregulin

Information

Gene ID	2069
Accession #	O14944
Alternate Names	EREG
Source	Escherichia coli.
M.Wt	Approximately 5.6 kDa, a single non-glycosylated polypeptide chain containing 49 amino acids.
AA Sequence	VAQVSITKCS SDMNGYCLHG QCIYLVDMSQ NYCRCEVGYT GVRCEHFFL
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
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 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED 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 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5μg	100μg	500μg
Recombinant Human Epiregulin	5μg	100μg	500μg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles
- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuEpiregulin as determined by LAL method.

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.

Reference

1. Xi QS, Qian XG, Zhou QW, et al. 2000. Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao (Shanghai), 32: 295-8

2. Kuntz E, Broca C, Komurasaki T, et al. 2005. Growth Factors, 23: 285-93

3. Shirakata Y, Kishimoto J, Tokumaru S, et al. 2007. J Dermatol Sci, 45: 69-72

4. Thuong NT, Hawn TR, Chau TT, et al. 2012. Genes Immun, 13: 275-81.

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