

Recombinant Human Epiregulin (EREG)

CATALOG #:	4069-25	25 µg
	4069-1000	1 mg
LOT #:	_____	
SOURCE:	<i>E. coli</i>	
PURITY:	>97% by SDS-PAGE and HPLC analyses Endotoxin level is <0.1 ng per µg of EREG.	
MOL. WEIGHT:	6.0 kDa	
FORM:	Sterile filtered and lyophilized from 0.5 mg/ml solution containing 20 mM PBS, pH 7.4 and 130 mM NaCl.	

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in sterile water to 0.1–1 mg /ml. The solution can then further diluted to other aqueous solutions.

STORAGE CONDITIONS:

The lyophilized EREG is best-stored desiccated below 0°C. Reconstituted EREG should be stored at working aliquots at –20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

DESCRIPTION:

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. Recombinant human EREG produced in *E.Coli* is a single, non-glycosylated, polypeptide chain containing 50 amino acids and having a molecular mass of 6 kDa.

BIOLOGICAL ACTIVITY:

The ED₅₀ as 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 x 10⁵ units/mg.

FOR RESEARCH USE ONLY! Not to be used on humans.

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