# Recombinant human Epiregulin protein

Catalog Number: ATGP4066

## PRODUCT INFORMATION

**Expression system**
HEK293

**Domain**
63-108aa

**UniProt No.**
O14944

**NCBI Accession No.**
NP_001423.1

**Alternative Names**
Epiregulin, Ep, EPR, ER, Proepiregulin, EREG

## PRODUCT SPECIFICATION

**Molecular Weight**
32.6kDa (289aa)

**Concentration**
0.25mg/ml (determined by Absorbance at 280nm)

**Formulation**
Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

**Purity**
> 90% by SDS - PAGE

**Endotoxin level**
< 1 EU per 1ug of protein (determined by LAL method)

**Biological Activity**
Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED50 range ≤ 1 ug/ml.

**Tag**
hIgG-His-Tag

**Application**
SDS-PAGE, Bioactivity

**Storage Condition**
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

# Recombinant human Epiregulin protein

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## Description

Epiregulin is a member of the epidermal growth factor family. It is expressed primarily in the placenta and macrophages and high level expression has also been detected in various carcinomas. This protein contributes to inflammation, wound healing, tissue repair, and oocyte maturation by regulating angiogenesis and vascular remodeling and by stimulating cell proliferation. Epiregulin is growth factors involved in cancer development. Deregulated epiregulin activity appears to contribute to the progression of a number of different malignancies, including cancers of the bladder, stomach, colon, breast, lung, head and neck, and liver. It inhibit the growth of several epithelial tumor cells and stimulated the growth of fibroblasts and various other types of cells. In addition, it has been implicated in the implantation process during pregnancy. Recombinant human Epiregulin, fused to hIgG-His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

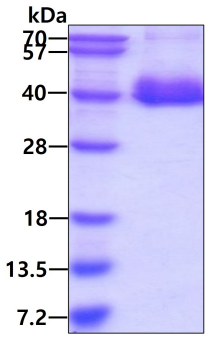
<DGSM>VSITKC SSDMNGYCLH GQCIYLVDMS QNYCRCEVGY TGVRCEHFFL <LEPKSCDKTH TCPPCPAPEL LGGPSVFLFP PKPKDTLMIS RTPEVTCVVV DVSHEDPEVK FNWYVDGVEV HNAKTKPREE QYNSTYRVVS VLTVLHQDWL NGKEYKCKVS NKALPAPIEK TISKAKGQPR EPQVYTLPPS RDELTKNQVS LTCLVKGFYP SDIAVEWESN GQPENNYKTT PPVLDSDGSF FLYSKLTVDK SRWQQGNVFS CSVMHEALHN HYTQKSLSLS PGKHHHHHH>

## General References

Shaowei Li., et al, (2008) Anticancer Res. 105:3539-3544.
Yamamoto T., et al, (2004) Anticancer Res. 24:2007-2010.
Cho MC., et al, (2008) Biochem. Biophys. Res. 377:832-837.

# DATA

## SDS-PAGE




3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

## Biological Activity

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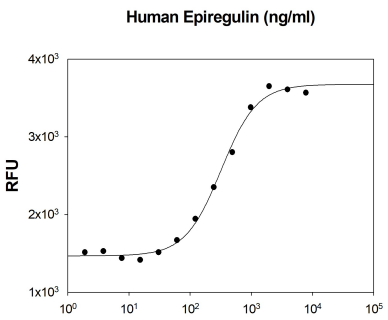


Human Epiregulin stimulates cell proliferation of the Balb/3T3 mouse embryonic fibroblast cells. The ED50 range ≤ 1 ug/ml.