

## Epiregulin Protein, Human

Cat. No.:	HY-P7011
Synonyms:	rHuEpiregulin; EREG; EPR
Species:	Human
Source:	E. coli
Accession:	O14944 (V60-L108)
Gene ID:	2069
Molecular Weight:	Approximately 5.6 kDa

### PROPERTIES

AA Sequence	V A Q V S I T K C S    S D M N G Y C L H G    Q C I Y L V D M S Q    N Y C R C E V G Y T G V R C E H F F L
Biological Activity	1. The ED <sub>50</sub> is <2 ng/mL as measured by murine Balb/c 3T3 cells, corresponding to a specific activity of >5 × 10 <sup>5</sup> units/mg. 2. Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED <sub>50</sub> for this effect is 0.3417 ng/mL, corresponding to a specific activity is 2.927×10 <sup>6</sup> units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	The human epiregulin gene encoded a 163-residue putative transmembrane precursor containing an EGF-like domain in the internal segment, and the structural organization was similar to that of other members of the EGF family that bind to EGF receptors. Epiregulin has certain characteristics that are different from those of the classical members of the EGF family, EGF and transforming growth factor alpha, including mitogenic responses on several normal cells and binding to EGF receptors on epidermoid carcinoma A431 cells. Northern blot analysis shows the expression of human epiregulin to be mainly on peripheral blood macrophages and the placenta in normal tissues, and is highest on epithelial tumour cell lines in various
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types of tumour cell lines. Epiregulin is involved in certain physiological processes such as maintenance or development of normal cell growth, and the progression of carcinomas<sup>[1]</sup>.

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## REFERENCES

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[1]. Toyoda H, et al. Distribution of mRNA for human epiregulin, a differentially expressed member of the epidermal growth factor family. *Biochem J.* 1997 Aug 15;326 ( Pt 1):69-75.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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