

# Human Epiregulin



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
5	#O14944	2069
<b>Background</b>	Epiregulin is a member of the EGF family that is highly expressed in many cancer-specific cells, cells of the placenta and macrophages (1,2). Epiregulin induces keratinocyte and corneal epithelial cell proliferation, oocyte maturation and may function in blastocyst implantation during pregnancy (3-5). Active soluble epiregulin is produced by proteolytic processing of a transmembrane precursor. Epiregulin is the only EGF family member known to bind to both the ErbB1/HER1 and ErbB4/HER4 EGF receptors (6). Epiregulin binding induces receptor homodimerization or heterodimerization with other Erb/Her receptors. Epiregulin activates the ERK1/2, and PI3K/Akt pathways (1,3).	
<b>Endotoxin</b>	Less than 0.01 ng endotoxin/1 µg hEpiregulin.	
<b>Purity</b>	>98% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant hEpiregulin. All lots are greater than 98% pure.	
<b>Source / Purification</b>	Recombinant human Epiregulin (hEpiregulin) Val63-Leu108 (Accession #NP_001423) was produced in <i>E. coli</i> at Cell Signaling Technology.	
<b>Bioactivity</b>	The bioactivity of recombinant hEpiregulin was determined in a MCF 10A cell proliferation assay. The ED <sub>50</sub> of each lot is between 0.10-0.85 ng/ml.	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Toyoda, H. et al. (1997) <i>Biochem J</i> 326 ( Pt 1), 69-75.</li> <li>2. Révillion, F. et al. (2008) <i>Ann Oncol</i> 19, 73-80.</li> <li>3. Morita, S. et al. (2007) <i>Mol Vis</i> 13, 2119-28.</li> <li>4. Shirakata, Y. et al. (2000) <i>J Biol Chem</i> 275, 5748-53.</li> <li>5. Song, H. et al. (2000) <i>Mol Endocrinol</i> 14, 1147-61.</li> <li>6. Riese, D.J. et al. (1998) <i>J Biol Chem</i> 273, 11288-94.</li> </ol>	

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