

Datasheet: PHP030A

Description:	RECOMBINANT HUMAN EGF
Name:	EGF
Other names:	EPIDERMAL GROWTH FACTOR
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	0.5 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			0.2 - 0.4ng/well
Western Blotting	▪			1.5 - 3.0ng/lane
Functional Assays	▪			0.5 - 25ng/ml

Where this protein has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the protein for use in their own system using appropriate positive/negative controls.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Mouse</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
Product Form	Purified recombinant protein - lyophilized
Reconstitution	<p>Reconstitute with 0.5ml distilled water</p> <p>Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For extended storage, the addition of 5% trehalose is recommended</p>
Preparation	Purified recombinant human EGF expressed in <i>E. coli</i>
Source	E.coli

Preservative Stabilisers	None present
Carrier Free	Yes
Endotoxin Level	< 0.1 ng/ug
Approx. Protein Concentrations	1.0 mg/ml after reconstitution.
External Database Links	<p>UniProt: P01133 Related reagents</p> <p>Entrez Gene: 1950 EGF Related reagents</p>
Product Information	Recombinant human epidermal growth factor is 6.2kDa globular protein composed of 53 amino acids. EGF is a polypeptide growth factor which stimulates the proliferation of a wide range of epidermal and epithelial cells.
Protein Molecular Weight	6.2 kD (53 Amino acid sequence)
Activity	1 x 10 ⁷ units/mg
Purity	>98% by SDS PAGE and HPLC analysis
ELISA	Recombinant human EGF may be used as the standard in ELISA applications with either a purified human EGF antibody (AHP767) or a biotinylated human EGF antibody (AHP767B).
Western Blotting	Recombinant human EGF may be used as the positive control for Western Blotting application with either a purified human EGF antibody (AHP767) or a biotinylated human EGF antibody (AHP767B)
References	<ol style="list-style-type: none"> Tomlins, C. & Storey, A. (2010) Cutaneous HPV5 E6 causes increased expression of Osteoprotegerin and Interleukin 6 which contribute to evasion of UV-induced apoptosis. Carcinogenesis. 31 (12): 2155-64. Wray, H. <i>et al.</i> (2012) α6 Integrin and CD44 enrich for a primary keratinocyte population that displays resistance to UV-induced apoptosis. PLoS One. 7 (10): e46968. Chen, W. <i>et al.</i> (2016) Tissue Kallikrein Inhibitors Based on the Sunflower Trypsin Inhibitor Scaffold - A Potential Therapeutic Intervention for Skin Diseases. PLoS One. 11 (11): e0166268. Zhang, X. <i>et al.</i> (2015) Wnt signaling regulates the stemness of lung cancer stem cells and its inhibitors exert anticancer effect on lung cancer SPC-A1 cells. Med Oncol. 32 (4): 95. Roth, K. <i>et al.</i> (2021) Clinically relevant aberrant Filip1l DNA methylation detected in a murine model of cutaneous squamous cell carcinoma. EBioMedicine. 67: 103383.

6. Inman, G.J. *et al.* (2018) The genomic landscape of cutaneous SCC reveals drivers and a novel azathioprine associated mutational signature. [Nat Commun. 9 \(1\): 3667.](#)
7. Aiderus, A. *et al.* (2021) Transposon mutagenesis identifies cooperating genetic drivers during keratinocyte transformation and cutaneous squamous cell carcinoma progression. [PLoS Genet. 17 \(8\): e1009094.](#)
8. Scemama, A. *et al.* (2023) Development of an *in vitro* microfluidic model to study the role of microenvironmental cells in oral cancer metastasis [F1000Research. 12: 439.](#)
9. Zhang, Y. *et al.* (2020) Sulfoxythiocarbamate S-4 inhibits HSP90 in human cutaneous squamous cell carcinoma cells. [Eur J Pharmacol. 889: 173609.](#)

Storage	<p>Prior to reconstitution store at -20°C. Following reconstitution store at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
Guarantee	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
Health And Safety Information	Material Safety Datasheet documentation #10527 available at: https://www.bio-rad-antibodies.com/SDS/PHP030A10527
Regulatory	For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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