

Cytokines

Human Recombinant Epigen



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Catalog #	78120	10 µg
	78120.1	50 µg

Product Description

Epigen belongs to the family of epidermal growth factor (EGF) ligands. It is expressed in a variety of tissues, including hepatic, testicular, cardiac, pulmonary, and others. Upon binding to EGF receptor expressed on epithelial cells, epigen triggers mitosis (Schneider & Yarden). The strong mitogenic potential can be explained by the low affinity binding to EGF receptor, which results in downregulation of receptor ubiquitination. Epigen is also expressed in adenocarcinomas, suggesting a role in oncogenesis (Kochupurakkal et al.).

Product Information

Alternative Names:	EPG, EPGN, Epithelial mitogen
Accession Number:	Q6UW88-2
Amino Acid Sequence:	MAVTVTPPIT AQQADNIEGP IALKFSHLCL EDHNSYCING ACAFHHELEK AICRCFTGYT GERCEHLTLT SYA
Predicted Molecular Mass:	8.1 kDa
Species:	Human
Cross Reactivity:	Mouse
Formulation:	Lyophilized after dialysis against phosphate-buffered saline.
Source:	E. coli

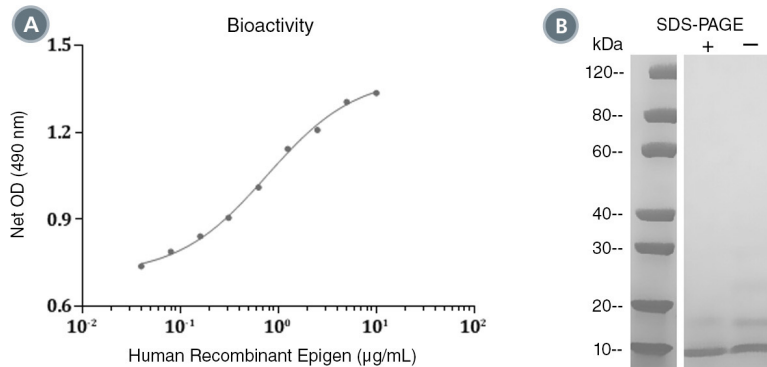
Specifications

Activity:	The specific activity is $\geq 1.0 \times 10^3$ units/mg ($EC_{50} \leq 1 \mu\text{g/mL}$) as determined by a cell proliferation assay of BALB/c 3T3 cells.
Purity:	$\geq 95\%$
Endotoxin Level:	Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage:	Store at -80°C .
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Resuspend the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at $2 - 8^\circ\text{C}$ for up to 2 weeks or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant Epigen was tested by its ability to promote the proliferation of BALB/c 3T3 cells. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the above example is less than 1 µg/mL.

(B) 2 µg of Human Recombinant Epigen was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

- Kochupurakkal BS et al. (2005) Epigen, the last ligand of ErbB receptors, reveals intricate relationships between affinity and mitogenicity. *J Biol Chem* 280(9): 8503–12.
- Schneider MR & Yarden Y. (2014) Structure and function of epigen, the last EGFR ligand. *Semin Cell Dev Biol* 28: 57–61.

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