

Cytokines

Human Recombinant IGF-II



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Insulin-like growth factor 2

Catalog #	78023.1	10 µg
	78023	50 µg
	78023.2	1000 µg

Product Description

Insulin-like growth factor 2 (IGF-II) is a polypeptide that belongs to the family of insulin-like growth factors that are similar in molecular structure to proinsulin. IGF-II binding to IGF-I receptor activates a signaling cascade via the MAPK and PI3K pathways. IGF-II affects growth, differentiation, and survival of cells in a variety of tissues during embryonic development. It stimulates proliferation and migration of primary lymphatic endothelial cells, and induces lymphangiogenesis (Guvakova).

Product Information

Alternative Names:	Insulin-like growth factor II, Insulin-like growth factor type 2, Somatomedin A, T3M-11-derived growth factor
Accession Number:	P01344
Amino Acid Sequence:	AYRPSETLCG GELVDTLQFV CGDRGFYFSR PASRVSRRSR GIVEECCFRS CDLALLETYC ATPAKSE
Predicted Molecular Mass:	7.5 kDa
Species:	Human
Cross Reactivity:	Not determined
Formulation:	Lyophilized from a sterile-filtered aqueous solution containing 0.1% trifluoroacetic acid.
Source:	E. coli

Specifications

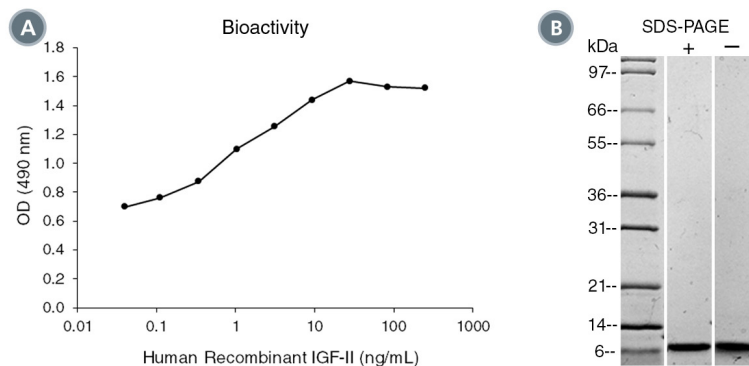
Activity:	The specific activity is $\geq 6.7 \times 10^4$ units/mg ($EC_{50} \leq 15$ ng/mL) as determined by a cell proliferation assay using FDC-P1 cells.
Purity:	$\geq 95\%$
Endotoxin Level:	Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

Preparation and Storage

Storage:	Store at -20°C to -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Reconstitute 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.

OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant IGF-II was tested by its ability to promote the proliferation of FDC-P1 cells. Cell proliferation was measured after 48 hours of culture 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 1.1 - 1.6 ng/mL.

(B) 1 µg of Human Recombinant IGF-II was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant IGF-II has a predicted molecular mass of 7.5 kDa.

Related Products

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

References

Guvakova MA. (2007) Insulin-like growth factors control cell migration in health and disease. *Int J Biochem Cell Biol* 39(5): 890–909.

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