Growth Factors Cytokines • Soluble Receptors Monoclonal Antibodies Polyclonal Antibodies ELISA

# Service Options:

- Production of recombinant proteins in E.coli and insect cells
- Purification of recombinant
  proteins and antibodies
- Reagent services: special formulation
- Bulk service
- Functional assays for growth factors and cytokines



# ReliaTech reliably yours

We are ISO 9001:2015 certified.

Your Partner in Life Science Research of Angiogenesis and Lymphangiogenesis

20 years of experience

# Get in touch:

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# Growth Factors Cytokines

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# www.reliatech.de

## Human

# Cytokines

Your benefit with ReliaTech's Growth Factors and Cytokines:

- High activity
- Controlled quality
- Low endotoxin levels
- Flexible sizes
- Carrier free or with stabilizer
- Made in Germany

## Biological activity of human VEGF165 and IL-6



Proliferation assay with primary human dermal lymphatic endothelial cells (HDLEC). The cells were stimulated using ReliaTech's recombinant human VEGF165 either E.coli or Sf9 derived, the WHO standard #02/286 and VEGF165 (Ec) from a competitor. The cells were stimulated with increasing amounts of recombinant human VEGF165.

Proliferation assay with mouse hybridoma cell line B9. The cells were stimulated using 2 different lots of human IL-6 produced at ReliaTech, the WHO standard #89/548 and an IL-6 protein from a competitor. The cells were stimulated with increasing amounts of recombinant human IL-6. (DULOO Jo %) (WCO 2000 Jo %) (

All values are the means ( $\pm$ SD) of triplicate determinations and expressed as percentage of control.

### **Biological activity**

The biological activity is checked in a suitable bioassay in direct comparison to the WHO standard and previous batches. A high consistency from batch to batch is guaranteed.

## Growth Factors by ReliaTech (selection)

Product      Host      Cat#      Size in μg        BMP-2      E.coli      200-001/-002 (S)      5, 10, 25        EGF      E.coli      100-008/-009      100, 500        FGF-2      E.coli      300-001/-002/-003      10, 25, 50        HCE      Incort colls      200.010/.011      5, 35				
EGF      E.coli      100-008/-009      100, 500        FGF-2      E.coli      300-001/-002/-003      10, 25, 50	Product	Host	Cat#	Size in µg
FGF-2      E.coli      300-001/-002/-003      10, 25, 50	BMP-2	E.coli	200-001/-002 (S)	5, 10, 25
	EGF	E.coli	100-008/-009	100, 500
HCE Incost colls 200 010/ 011 E 25	FGF-2	E.coli	300-001/-002/-003	10, 25, 50
HGF Insect cens 300-010/-011 5, 25	HGF	Insect cells	300-010/-011	5, 25
PDGF-BB E.coli 200-055/-056 (S) 2, 5, 20	PDGF-BB	E.coli	200-055/-056 (S)	2, 5, 20
SCF E.coli 100-097 (S, SC) 2, 10, 50	SCF	E.coli	100-097 (S, SC)	2, 10, 50
SCF      Insect cells      400-013/-014 (S, SC)      2, 5, 20, 50	SCF	Insect cells	400-013/-014 (S, SC)	2, 5, 20, 50
VEGF165 E.coli 300-075/-076 (S) 2, 5, 20	VEGF165	E.coli	300-075/-076 (S)	2, 5, 20
VEGF165 Insect cells 300-035/-036 (S) 2, 5, 20	VEGF165	Insect cells	300-035/-036 (S)	2, 5, 20

## Cytokines by ReliaTech (selection)

Product	Host	Cat#	Size in µg
GM-CSF	E.coli	200-004/-005 (DC)	2, 10, 50
GM-CSF	Insect cells	400-010/-011 (S, DC)	2, 5, 20, 50
IL-1 beta	E.coli	400-001/-002 (DC)	2, 10, 50
IL-2	E.coli	200-009/-10	10, 50
IL-3	E.coli	200-015/-016 (DC)	2, 10, 50
IL-4	E.coli	200-021/-022/-023(DC)	2, 10, 50
IL-6	E.coli	200-030/-031 (DC)	5, 20, 50

#### You need our reagents

- in a larger amount?
- with or without special carrier proteins?
- differing vial sizes?

**ReliaTech offers** all necessary product design options to make products suitable for your research purposes, especially

- fillings of individually defined amounts of protein per vial
- product stabilization with carrier protein (e.g. bovine, human, mouse or rat serum albumin)
- choice of individual presentation forms (e.g. liquid, lyophilized, freeze-dried)

**ReliaTech's reagent service** will enable you to fit reagents into the requirements of your specific experimental settings.

For further information, please contact us: orders@reliatech.de!

### Production

ReliaTech produces growth factors and cytokines in E.coli or insect cells. The identity of the proteins is checked by means of N-terminal sequencing and Western blot analysis. The purity is indicated by SDS-PAGE.

## SDS-PAGE analysis of human FGF-2 and GM-CSF



A: SDS-PAGE analysis of recombinant human FGF-2 (basic). Samples were loaded in 15% SDS-polyacrylamide gel under reducing (left) and non-reducing (right) conditions and stained with Coomassie Blue.

B: SDS-PAGE analysis of recombinant human GM-CSF derived from E.coli. Sample was loaded in 15% SDS-polyacrylamide gel under reducing conditions and visualized with silver staining.

#### Quality control

Each batch is tested for biological activity and its endotoxin level is determined. After lyophilization a test vial of each batch is reconstituted and checked precisely for the amount of protein, its activity and stability. We store reserve samples from each batch. A CoA of each batch is available.

#### Shelf life and storage

Our growth factors and cytokines are lyophilized and thus stable for at least two years from date of receipt if stored correctly. The lyophilized products are shipped at room temperature. For this simplified and cost-effective shipping, the stability of the products has been tested and guaranteed for up to 4 weeks at room temperature. We recommend long-term storage at -20°C. You will find specific information on reconstitution and stability on our data sheets.

#### Sterility

All products are sterile filtered (0.2  $\mu\text{m}$ ) before lyophilization.