

Important information about Biochrom AG cytokines

Information from Biochrom AG

Biochrom offers a wide range of recombinant proteins and antibodies. We guarantee for all products high pureness, low endotoxin concentration, and appropriateness for the cell culture. The products are applicable for research use only. Any application on humans is not allowed. All recombinant proteins are lyophilized and can be delivered at room temperature. Correctly stored (-20 °C and less), we guarantee a stability of at least one year counted from the delivery date. Most of the products are lyophilized without stabilizer (e. g. HSA), although in some cases a stabilizer benefits considerably. On request, all products are also available without stabilizer.

Biochrom AG generally offers proteins in two different product-specific fillings. These vary between the standards 1 and 5 µg (e.g. human TGF-beta1), and as well 100 µg and 500 µg (e. g. human EGF). Besides, we offer a lot of products in 1000 µg bulk fillings. For orders of 500 µg and more per product, individual fillings are possible on surcharge.

1 Protein stability

Lyophilised cytokines are processed in such a way that they can be stored for two weeks at room temperature. However, Biochrom AG recommends storing lyophilised products longer-term at -20 °C, if not noted otherwise on the data sheet.

➤ **Recommendation for reconstituted solutions and for fluid cytokines**

The solutions can be stored short-term at a temperature of 4 °C. For longer storage, the protein solutions should initially be aliquoted (in order to prevent freezing and thawing). They can then be stored at -20 °C. Please note that any freezing or thawing can denature the protein!

Lyophilised protein residues are not always visible in the vial

Most Biochrom AG cytokines do not contain any stabilisers or additives (e.g. BSA, HSA, sucrose, etc.). They are normally lyophilised with a minimum amount of salt. As a result small amounts of protein can be deposited on the side of the vial during lyophilisation, sometimes as a thin film, sometimes invisible.

➤ **Recommendation**

Before opening, each vial should be centrifuged in a microcentrifuge for 20 to 30 seconds, in order to collect any protein on the bottom. Biochrom AG quality control procedures ensure that each vial contains the correct amount of product!

2 Data sheets

The relevant information relating to each product appears on the data sheet that is shipped with the product. Please read this information carefully to obtain useful instructions for reconstitution and storage. If, after reading the data sheet, you need additional information, please contact our customer service department.

3 Biochrom AG cytokines are carefully analysed

- **Authenticity:**
by N-terminal sequence analysis, and, when possible, by SDS-PAGE, RP-HPLC, and Mass Spectrometry analyses versus standards
- **Purity:**
by SDS-PAGE and RP-HPLC analysis
- **Biological Activity:**
by the relevant *in vitro* or *in vivo* bioassay
- **Protein content:**
by UV spectroscopy, SDS-PAGE analysis and, when possible, by HPLC analysis versus the calibrated standard solution
- **Endotoxin contamination:**
by kinetic LAL method
- **Microbiological contamination:**
by membrane filtration method; protein solutions are sterile-filtered prior to vialing