

Cytokine Guide for Researchers

The comprehensive guide to choosing high-quality cytokines based on applications.



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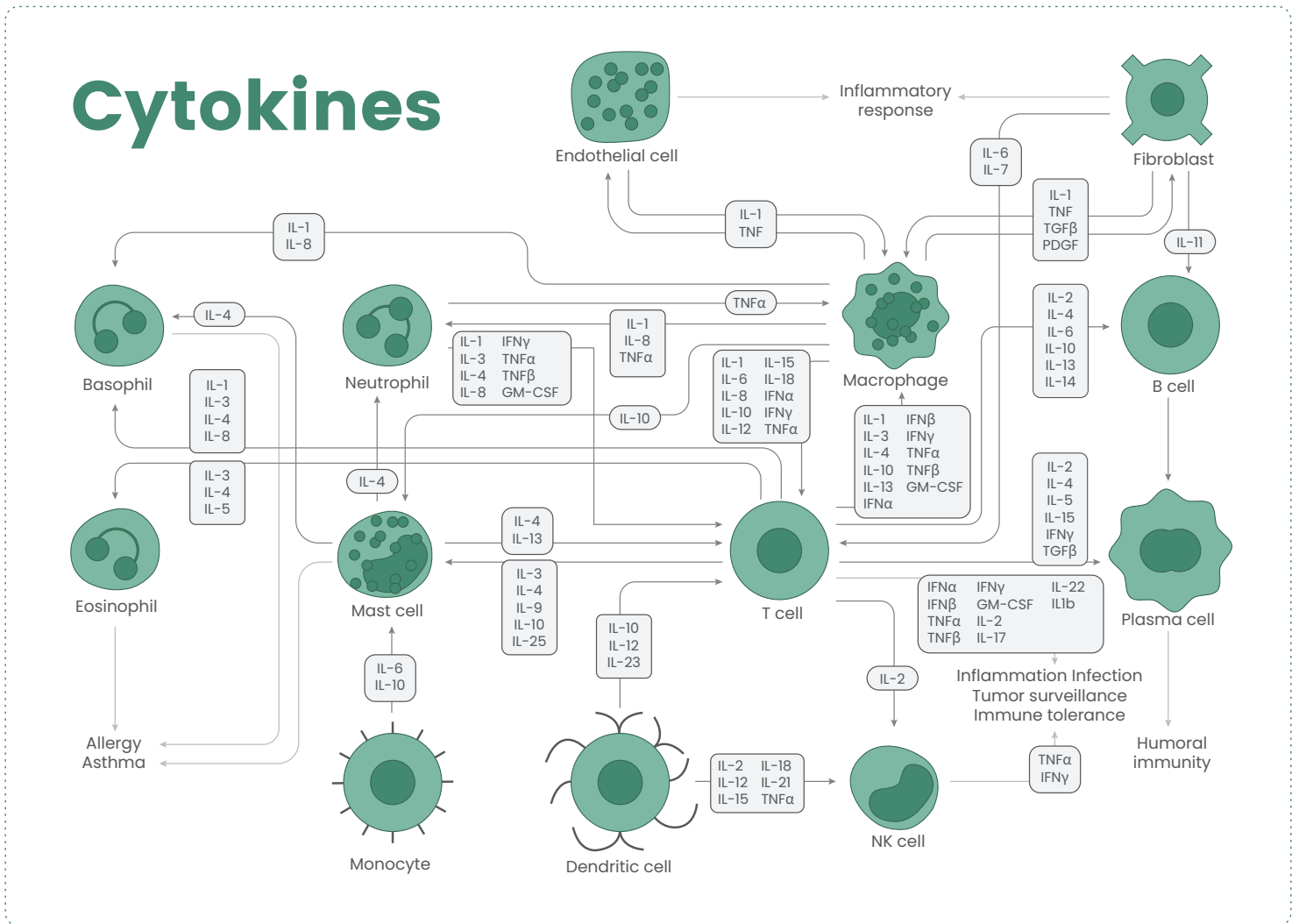


Sino Biological

The Comprehensive Guide to Choosing High-quality Cytokines Based on Applications.

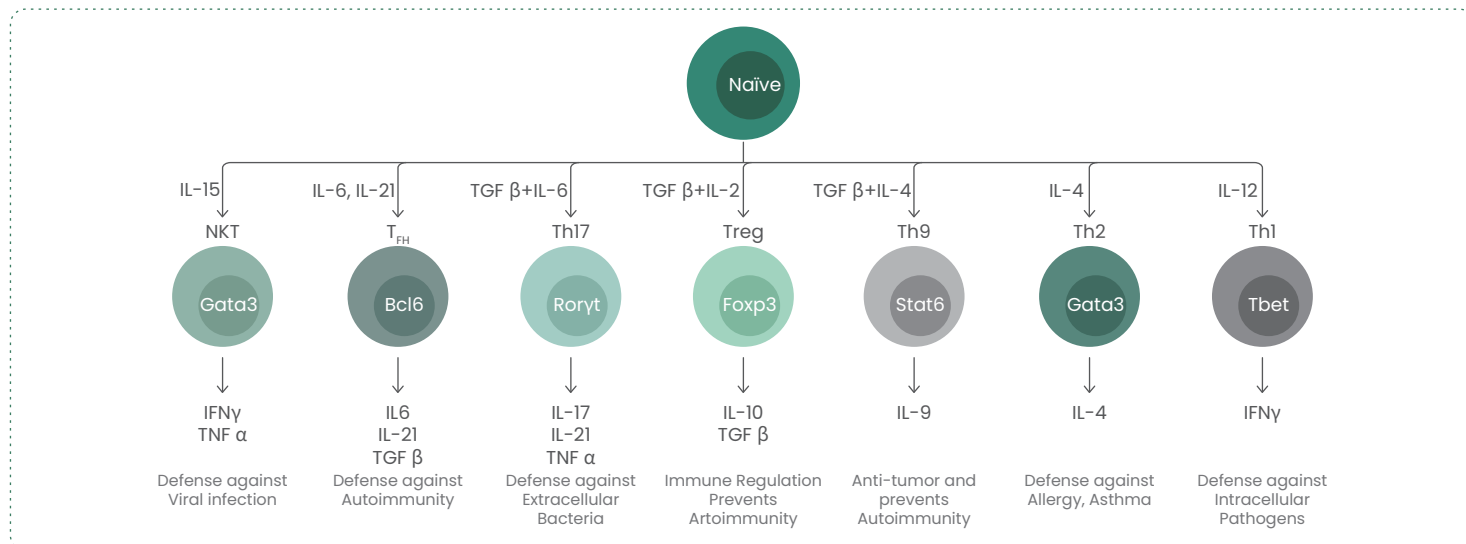
Cytokines are small proteins produced by immune cells that have specific effects on cellular communications and interactions. These molecules can act on the cells that secrete them, on nearby cells, or in some instances on distant cells. They could work together or against each other to regulate immune functions.

The role of cytokines is constantly being investigated in clinical studies. The therapeutic benefits of targeting cytokine receptor signaling pathways are being studied for a wide range of diseases, including inflammation, autoimmune diseases, and cancer. This whitepaper discusses the coverage and quality of cytokine products suitable for your research.



Cytokines For T-cell Culture

Several stages of the immune response can be affected by cytokines. In recent years, advances in T-cell mediated cancer therapies, such as CAR-T or tumor-infiltrating lymphocyte therapies, have opened up new possibilities for treating cancer. Interleukin-2 (IL-2) is a potent cytokine most commonly used in T cell culture to promote the proliferation and differentiation into effector and memory T cells. Other γ -cytokines, such as IL4, IL-7, IL-15, and IL-21, play essential roles in memory T cell formation, proliferation, and survival.



Various Species

High Purity

HPLC Verified

Low Endotoxin

High Activity

Sino Biological Inc. has developed high quality cytokines for your research involving T-cell culture.

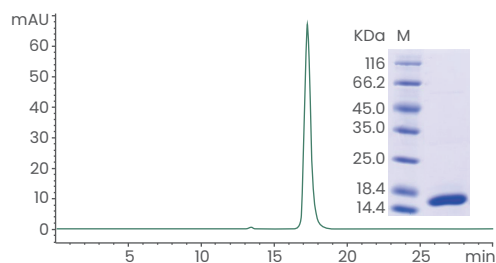
Human IL-7 Protein Cat#: 11821-HNAE

High-purity

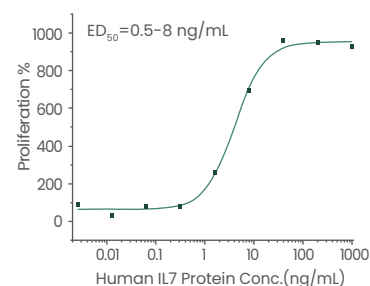
High Activity

Tag-free

HPLC-verified



Purity: \geq 95 % as determined by SDS-PAGE & HPLC



Cell proliferation assay using anti-CD3 antibody activated human peripheral blood mononuclear cell

Human IL-2 Protein Cat#: 11848-HNAH1-E

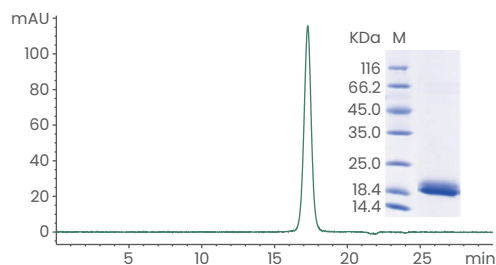
High-purity

High Activity

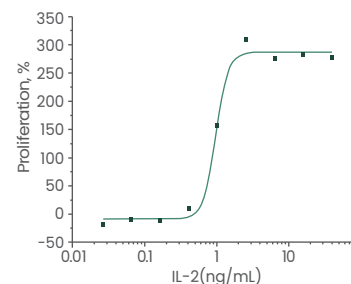
Tag-free

HPLC-verified

Low-endotoxin



Purity: > 95 % as determined by SDS-PAGE.
> 95 % as determined by SEC-HPLC



Measured in a cell proliferation assay using CTLL-2 mouse cytotoxic T cells

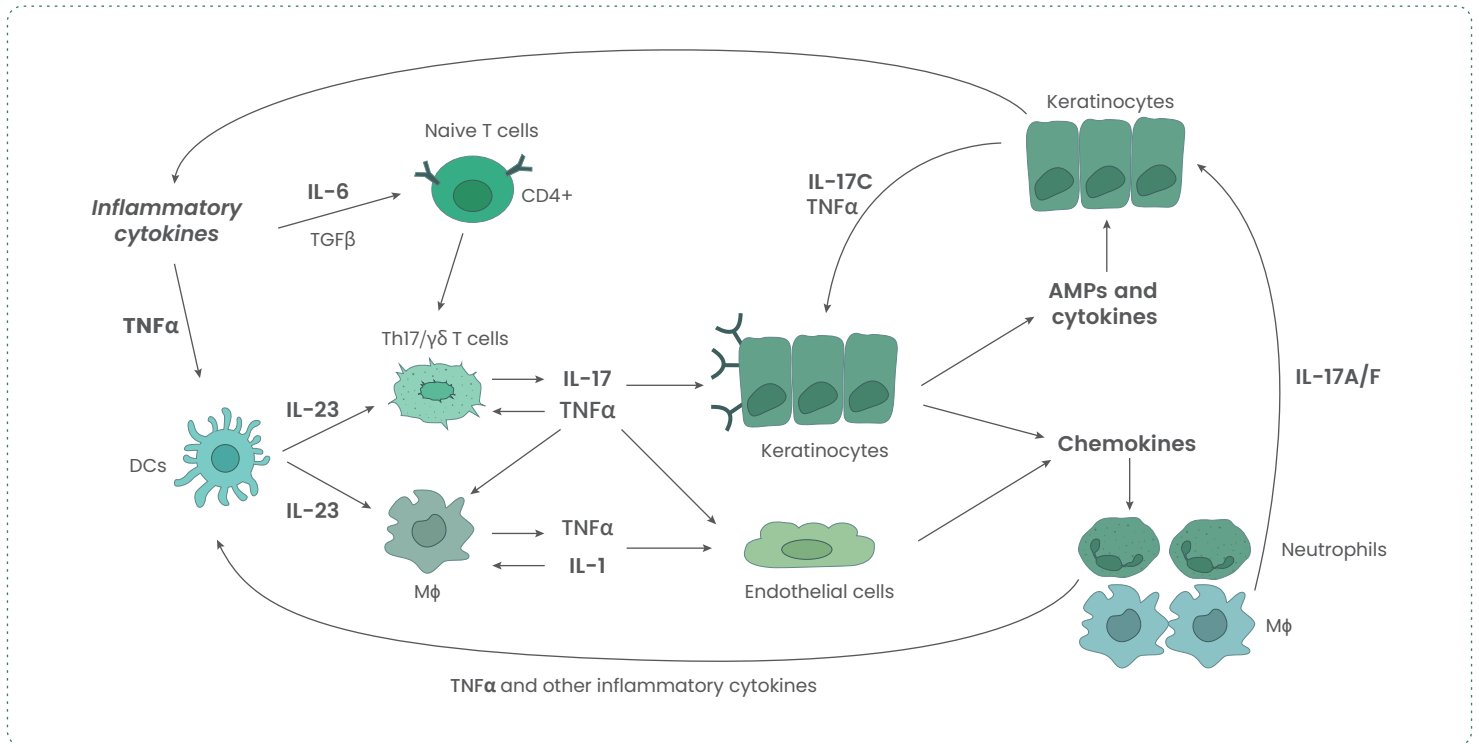


Click here for our featured cytokines for T-cell culture.

<https://www.sinobiological.com/category/ads/cytokines-for-t-cell-culture>

Cytokines In Inflammatory Disorders

Inflammatory cytokines are key regulators of immune responses. Cytokines are emerging as therapeutic targets for inflammatory disorders and autoimmune diseases. Most clinical and pre-clinical studies identify TNF α , IL-6, IL-17, and IL-23 as the major drug targets for autoimmunity, whereas, IL-1 β , IL-6, IL-11, IL-17, TNF α , Eotaxin are involved in inflammatory disorders.



Sino Biological Inc. has developed high quality cytokines for your research on autoimmune and inflammatory disorders.

Human TNF-alpha Protein Cat#: 10602-HNAE

High-purity High Activity Tag-free HPLC-verified Low-endotoxin

Purity: $\geq 95\%$ as determined by SDS-PAGE.
 $\geq 95\%$ as determined by SEC-HPLC

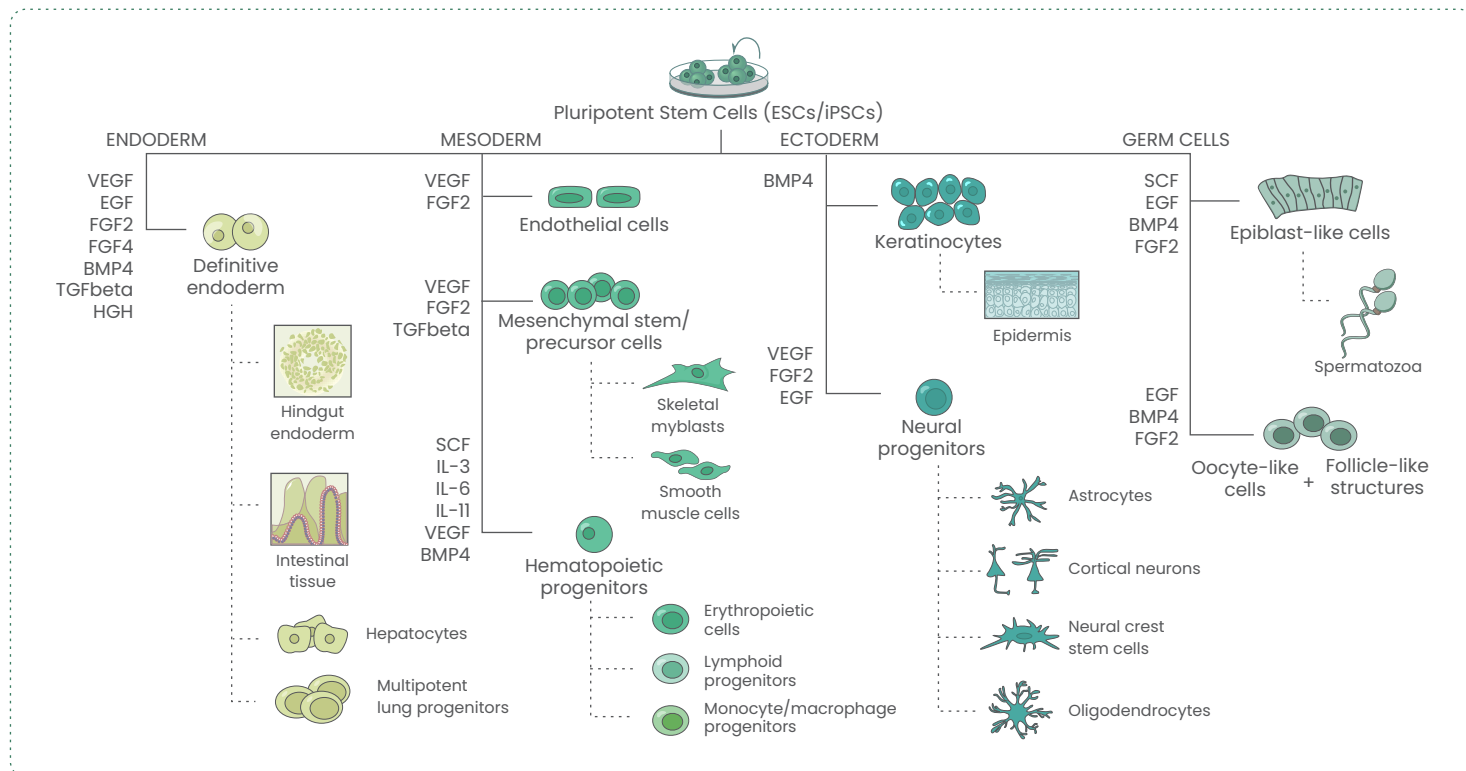
Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D

Batch-to-batch consistency

Click here for our featured cytokines for inflammatory diseases.
<https://www.sinobiological.com/category/ads/cytokine-chronic-inflammation>

Cytokines In Stem Cell Research

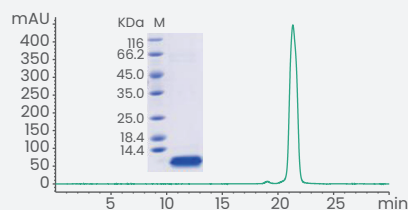
Cytokines and growth factors are integral to stem cell research. Many growth factors and cytokines involved in hematopoiesis, neurogenesis, mesenchymal, and cancer stem cell expansion have been extensively characterized for their potential use in stem cell therapy.



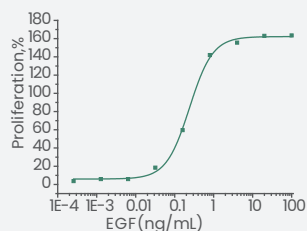
Sino Biological Inc. has developed high quality cytokines for stem cell research.

Human EGF Protein Cat#: 10605-HNAE

High-purity High Activity Tag-free
HPLC-verified Low-endotoxin



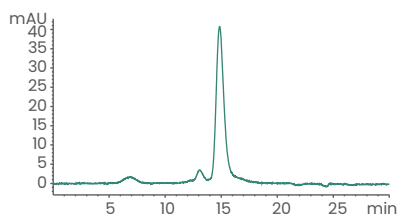
Purity: > 95% as determined by SDS-PAGE.
> 95% as determined by SEC-HPLC



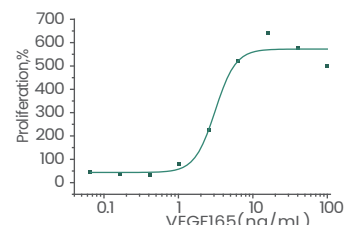
Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblasts.

Human VEGF165 Protein Cat#: 11066-HNAH

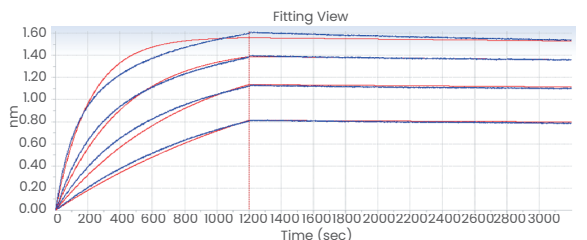
High-purity High Activity Tag-free HPLC-verified



Purity: > 95% as determined by SDS-PAGE.
> 90% as determined by SEC-HPLC.



Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC). The ED₅₀ for this effect is typically 2-10 ng/mL



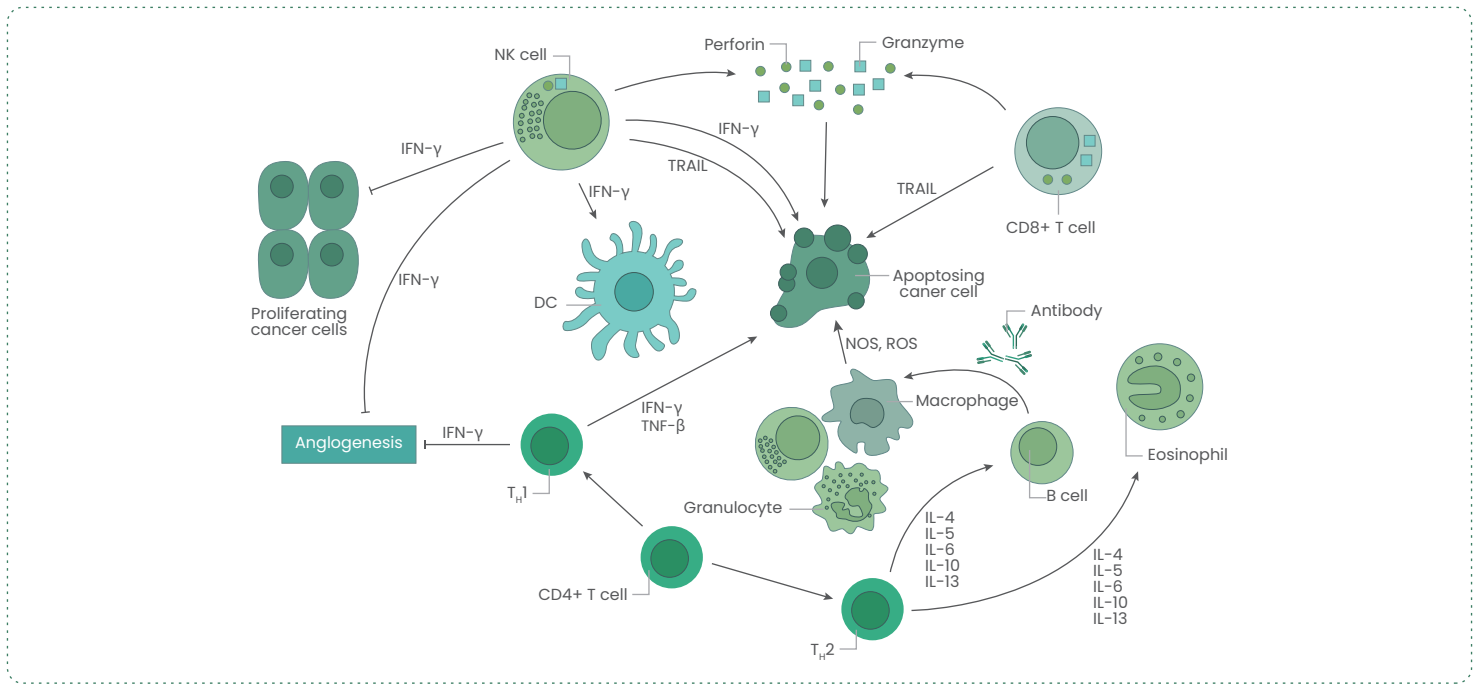
Using the Octet RED System, the affinity constant (Kd) of VEGF165 Protein, Human / Cynomolgus, Recombinant, Biotinylated (Cat#: 11066-HNAH-B) bound to Avastin was 0.1 nM



Click here for all the reagents for stem cell research.
<https://www.sinobiological.com/areas/stem-cells>

Cytokines In Cancer Therapy

The cytokines trigger a downstream signaling cascade in cells by binding to their receptors. As a result, cytokines and their receptors are major drug targets, especially for the treatment of cancer. Therapeutic targeting of cytokine pathways holds great promise for cancer treatment. Several new therapeutic approaches to cancer utilize cytokine antagonists or inhibitors to inhibit the proliferation and metastasis of tumor cells and make the cancer cells more susceptible to cytotoxic agents.



Sino Biological Inc. has developed high quality cytokines for your research on cancer therapy.

Human IFN-gamma Protein Cat#: 11725-HNAE

- High-purity
- High Activity
- Tag-free
- HPLC-verified
- Low-endotoxin

Purity: ≥ 95 % as determined by SDS-PAGE.
≥ 95 % as determined by SEC-HPLC

Measured in anti-viral assays using WISH cells infected with vesicular stomatitis virus (VSV).

Human IL-18 Protein Cat#: 10119-HNCE

- High-purity
- High Activity
- Tag-free
- HPLC-verified

Purity: ≥ 95 % as determined by SDS-PAGE.
≥ 95 % as determined by SEC-HPLC

Measured by its ability to induce IFN-gamma secretion by KG-1 human acute myelogenous leukemia cells in the presence of TNF-alpha

[Click here for all the reagents for cancer therapy.](https://www.sinobiological.com/areas/cancer/cancer-immunology)
<https://www.sinobiological.com/areas/cancer/cancer-immunology>



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