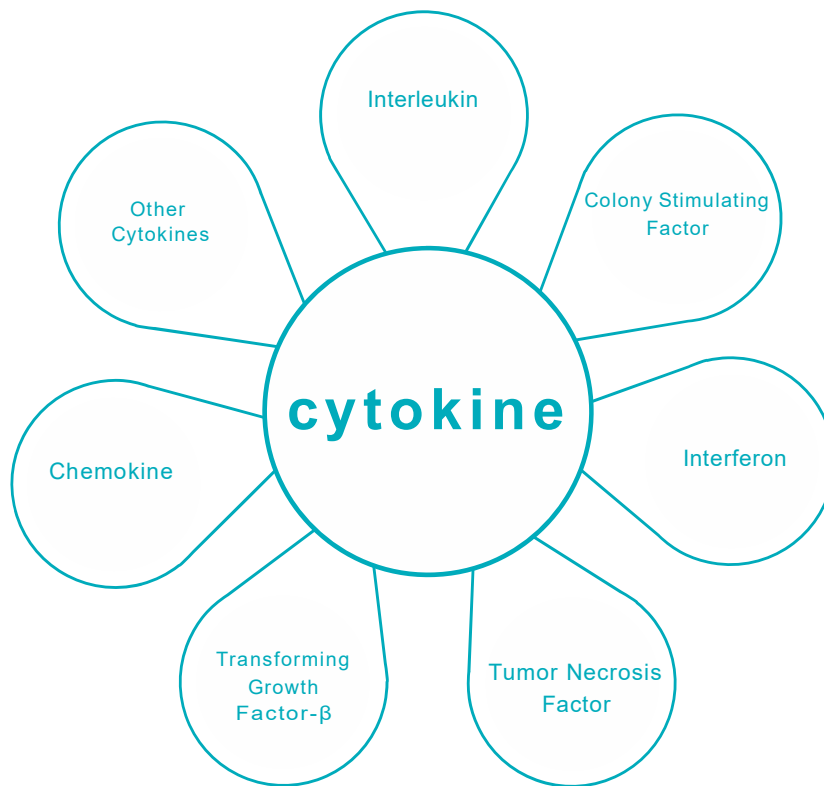


CELLSTORE CYTOKINE SERIES

Provide comprehensive and professional cytokine products for the cell therapy industry

PRODUCT DESCRIPTION

Based on the GMP-level quality management system platform, we combine the production specifications of cell therapy drugs to provide a variety of products such as interleukins, TGF- β family, tumor necrosis factor TNF, and colony-stimulating factor CSF. With stricter quality management and release testing standards, it supports the clinical research of immune cell therapy drugs and accelerates the clinical and marketing application processes.



| Cat.No. | Cytokines |
|--------------------------------------|---|
| CAR-T | IL-2/IL-7/IL-12/IL-15/IL-18/IL-21 |
| TCR-T | IL-2/IL-4/IL-7/IL-12/IL-15/IL-21/TGF-beta |
| CAR-NK | IL-2/IL-12/IL-15/IL-18/IL-21/IL-27/SCF/Flt-3L |
| NK Cells | IL-2/IL-3/IL-7/IL-12/IL-15/IL-18/IL-21/SCF/Flt-3L |
| T Cells | IL-2/IL-4/IL-6/IL-7/IL-12/IL-15/IL-18/IL-21/TGF-beta |
| TIL (Tumor-Infiltrating Lymphocytes) | IL-2/IL-4/IL-6/IL-7/IL-12/IL-15/IL-21/GM-CSF |
| DC Cells (Dendritic Cells) | IL-1 β /IL-4/IL-7/IL-15/GM-CSF/TGF-beta/IFN- γ /Flt-3L |
| Mesenchymal Stem Cells | IL-2/L-3/IL-6/VEGD/SCF/TGF-beta/GM-CSF/BMP-4/LIF/BMP-2/EPO/FLT3L/PDGF-BB/EGF/FGF-2 |
| Hematopoietic Stem Cells | SCF/GM-CSF/IL-3/IL-6/LIF/TPO/VEGF/BMP-4/BMP-2/EPO/FLT3L/TGF-beta |
| Embryonic Stem Cells | IL-2/IL-3/L-6/IL-7/IL-15/SCF/BMP-4/LIF/BMP-2/EPO/FLT3L/PDGF-BB/EGF/FGF-2/BAFF/TGF-beta/ActivinA |
| Organoids | Wnt-3a,R-spondin 1/Noggin/FGF2/bFGF,FGF10/EGF/SHH/HGF/BDNF/GDNF/ActivinA |

PRODUCT FEATURES

- Tag-free purification
- Strong specificity and high purity
- Both GMP and research levels can be provided
- Fully meet the needs of various cell cultures
- Specifications can be customized according to requirements

IMPROVED CYTOKINES

IL-2Pro

IL-2 with high solubility

PRODUCT DESCRIPTION

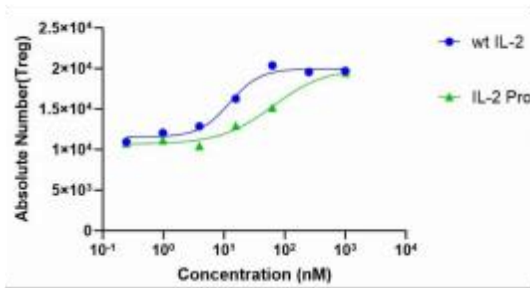
Compared with wild-type IL-2, IL-2 Pro can slowly activate regulatory T cells (Treg), reduce the negative regulation of the immune system, and give full play to the immunomodulatory function of T cells to a greater extent. This product has high solubility, strong purity and specificity, and is more convenient to use in relevant drug processes and R & D.

PRODUCT FEATURES

- High activity and bias
- High purity and high solubility
- Strong batch-to-batch stability

EXPERIMENTAL DATA

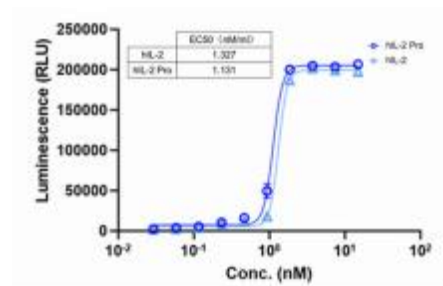
Comparison of activity with wild-type IL-2



Activity comparison between IL-2 Pro and wild-type IL-2

The results show that compared with wild-type IL-2, IL-2 Pro can slowly activate regulatory T cells (Treg).

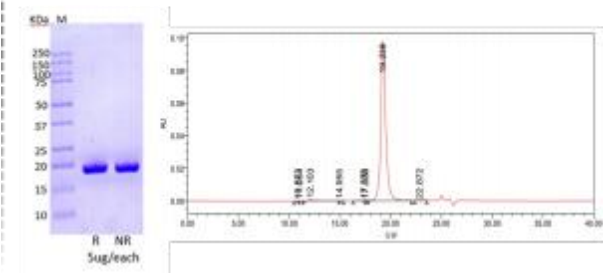
Comparison of activity



Activity comparison between IL-2 Pro and IL-2 (CTLL-2 cells).

The experiment on the activity of mouse T lymphocytes (CTLL-2) cells shows that the activity of IL-2 Pro is similar to that of IL-2.

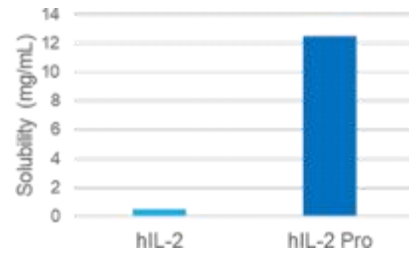
Purity determination by SDS-PAGE and SEC-HPLC



Purity analysis of IL-2 Pro by SDS-PAGE and SEC-HPLC

SDS-PAGE showed that the molecular weight of the protein was approximately 17 kDa, and no impurity proteins were observed. SEC-HPLC showed high purity, and no aggregates were produced.

Solubility determination



Comparison of solubility between IL-2 Pro and IL-2

Under the condition of pH 7.4, the concentration of IL-2 Pro can reach 12.5 mg/ml, which is 25 times that of the wild type.

Cytokine products

IMPROVED CYTOKINES IL-15PRO

IL-15 with ultra-high activity

PRODUCT DESCRIPTION

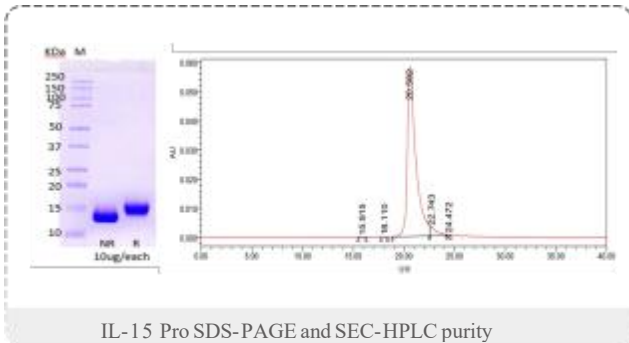
IL-15 Pro is an IL-15 with ultra-high activity obtained through precise molecular design. In the production process, the problems of poor stability and easy formation of isomers of IL-15 have been solved. The purification process does not rely on reverse-phase chromatography, and it is more stable in solution. The affinity of IL-15 Pro for the IL-15 receptor is more than 100 times higher than that of the wild-type, and its ability to promote the proliferation of NK cells is 20 times higher.

PRODUCT FEATURES

- High activity, better cell stimulation effect
- Animal-free, reducing the risk of introducing exogenous viruses
- Less likely to form isomers, more stable for batch-to-batch use
- Both GMP grade and research grade are available
- High purity, stronger specificity

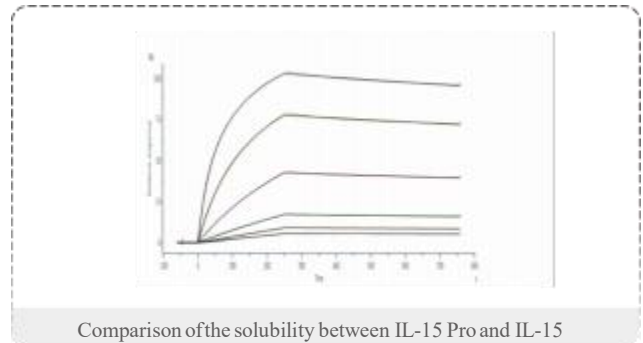
EXPERIMENTAL DATA

Purity determination by SDS-PAGE and SEC-HPLC



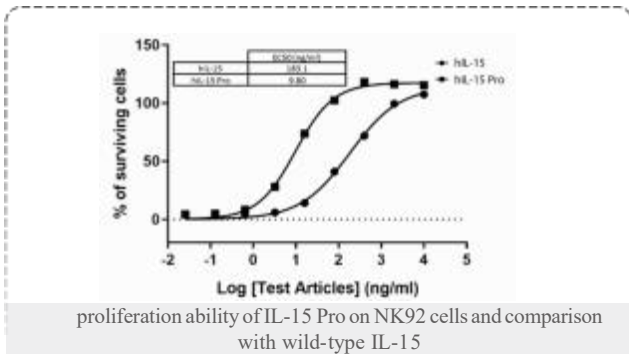
NR & R SDS-PAGE showed that the molecular weight of the protein was approximately 15 kDa (left), and no impurity protein was observed; SEC result showed high purity with no aggregates produced (right)

Determination of IL-15 Pro binding activity



SPR results showed that the K_d between human CD122 (IL-15R-beta) and IL-15 Pro is 0.51 nM

Cellular activity assay of IL-15 Pro



The proliferation ability of IL-15 Pro on NK cells (NK92) can be increased by 20 times

ORDERING INFORMATION

| Cat.No. | Level | Cat.No. | Specification |
|-----------|-----------|----------------|---------------|
| IL-2 Pro | RUO grade | CS-IL2-10-2 | 10 µg |
| | | CS-IL2-20-2 | 20 µg |
| | | CS-IL2-50-2 | 50 µg |
| | GMP grade | CS-GIL2-50-2 | 50 µg |
| | | CS-GIL2-500-2 | 500 µg |
| IL-15 Pro | RUO grade | CS-IL15-10L-2 | 10 µg |
| | | CS-IL15-20-2 | 20 µg |
| | | CS-IL15-50-2 | 50 µg |
| | GMP grade | CS-GIL15-50-2 | 50 µg |
| | | CS-GIL15-500-2 | 500 µg |

Cytokine products

TPOCYTOKINE

PRODUCT DESCRIPTION

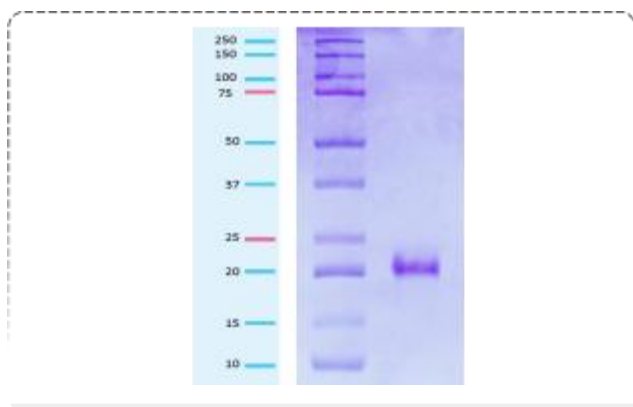
Our Thrombopoietin (TPO) has a molecular weight of approximately 19 kDa, and its molecular sequence has a homology of over 98% with the wild - type. It uses the prokaryotic expression system, contains no animal - derived components, and adopts a non - tagged purification method, which significantly reduces the risk of introducing exogenous metal ions. Its purity is > 95%, and the endotoxin level is < 0.1 EU/μg. While ensuring safety, it greatly improves the specificity of the product and fully meets the needs of customers

PRODUCT FEATURES

- Prokaryotic expression system, no animal-derived components
- High activity, specific activity $\geq 1 \times 10^6$ units/mg
- Non-tag purification, low risk of introducing exogenous metal ions

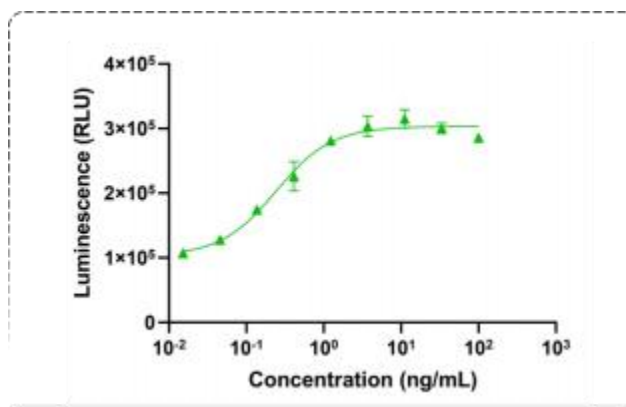
EXPERIMENTAL DATA

Electrophoresis (SDS-PAGE)



Detected by SDS-PAGE, the results showed that the molecular weight of the protein was approximately 19 kDa and no impurity proteins were observed, which was similar to the natural protein.

Bioactivity - Bioactivity CELL



Through the proliferation dose-dependent stimulation experiment on human MO7e cells, the results showed that the corresponding specific activity is $\geq 1 \times 10^6$ units/mg

PRODUCT APPLICATIONS

- Research related to hematopoietic stem cell culture: Engaged in research on diseases related to hematopoietic stem cells, such as thalassemia, acute myeloid leukemia, aplastic anemia, etc.
- Research on the induced directed differentiation of iPSCs: Engage in research related to the directed differentiation of induced pluripotent stem cells (iPSCs) into platelets, T cells, and NK cells.

ORDERING INFORMATION

| Cat.No. | Level | Cat.No. | Specification |
|---------|-----------|---------------|---------------|
| TPO | RUO grade | CS-TPO-10L-2 | 10 μg |
| | | CS-TPO-50L-2 | 50 μg |
| FLI3L | RUO grade | CS-FLT3L-10-2 | 10 μg |
| | | CS-FLT3L-20L | 20 μg |
| | | CS-FLT3L-50L | 50 μg |
| GM-CSF | RUO grade | CS-CSF2-10L | 10 μg |
| | | CS-CSF2-20L | 20 μg |
| | | CS-CSF2-50-2 | 50 μg |
| SCF | RUO grade | CS-SCF-10-2 | 10 μg |
| | | CS-SCF-20L | 20 μg |
| | | CS-SCF-50L | 50 μg |