Cellastim® S

Recombinant Human Serum Albumin (rHSA), Cell Culture Grade Animal-Origin-Free



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1. PRODUCT DESCRIPTION

Cellastim® S is a chemically defined, animal-origin-free recombinant human serum albumin (rHSA) supplied as a lyophilized powder with lipid enhancement. Manufactured in a non-mammalian expression system, it provides a consistent, scalable alternative to plasma- and bovine-derived albumins.

Designed for use as a cell culture supplement, Cellastim S delivers functional benefits validated across a wide range of serum-free applications. It supports cell expansion, antioxidant protection, shear stress reduction, osmotic balance, and nutrient transport in CHO, HEK293, MSC, immune, and other primary or production cell types. The lipid-enhanced formulation promotes stability and robust growth in chemically defined media systems.

This product is regulatory-friendly and eliminates risks associated with animal- or serum-derived components. Like all InVitria products, it is made in an ISO 9001–certified, cGMP-compliant U.S. facility that is certified animal-origin-free (AOF), with documented controls preventing the use or presence of animal-derived materials.

2. PRODUCT INFORMATION

GMP Part Number	777HSA017S
Product Type	Cell culture-grade recombinant human albumin
Format	Lyophilized powder
Purity	> 96.0%
Packaging	10 g, 100 g, & 1 kg bottles
Endotoxin Level	≤ 1.000 EU/mg
pH	6.50 - 7.50
Source	Recombinant
Shelf Life	4 years
Storage	-20°C
Manufacturing Site	• Animal-origin-free facility • ISO 9001–certified • cGMP-compliant

GUIDELINES FOR USE

3. APPLICATIONS

- Serum-free and chemically defined culture of CHO, HEK293, and stem cells
- T cell, dendritic and NK cell expansion in immune cell therapy workflows
- Supports protein production, differentiation, and metabolic stability
- Enhances media performance

4. PREPARATION & USE

Format: This product is supplied as a lyophilized powder.

Reconstitution: For 100 mL of a 10% w/v stock solution, add 10 g pre-weighed Cellastim S to 125 mL sterile PETG bottle. Add approximately 70 mL of cold, sterile DPBS, PBS, or basal media. Gently mix to dissolve, avoid vortexing or vigorous mixing. Allow to dissolve fully at 4°C for at least 12 hours, protected from light. Once no visible particles remain, bring to final volume (100 mL) using the same buffer or media.

Mixing: Gently invert or tilt bottle until homogenous; **DO NOT SHAKE OR VORTEX.**

Filtration: Sterile filter the reconstituted solution using a 0.2 µm low-protein-binding filter.

Note: *This product is lyophilized and not classified as sterile. To ensure sterility, reconstitute under aseptic conditions and sterile filter using a 0.2 µm low-protein-binding filter before use in sterile workflows.*

Recommended usage:

- Cell culture supplementation: 0.1–2 g/L
- **Optimization**: Due to its high purity and consistent activity, Cellastim S often performs at lower concentrations than serum-derived HSA. Start at equivalent mass (mg/mL) and titrate to the minimal effective dose.

5. STORAGE & STABILITY

- **Shelf life**: Up to 4 years when unopened and stored at −20°C.
- **Reconstituted solutions:** Store at 2–8°C protected from light for up to 4 weeks.
- Keep tightly sealed to prevent contamination and moisture uptake.
- **AVOID:**
  - Repeated freeze–thaw cycles
  - Prolonged exposure to temperatures >25°C
  - Direct sunlight or UV exposure
  - Vigorous agitation (shaking, vortexing, etc.)
  - Contact with oxidizing agents
  - Opening outside a sterile environment

6. REGULATORY NOTES

- Animal-origin-free (AOF)
- Chemically defined
- Manufactured in a cGMP-compliant, ISO 9001-certified facility
- Manufactured in the USA for reliable sourcing and regulatory alignment
- Ethically sourced & sustainable

7. ADDITIONAL RESOURCES

- Website - Cellastim S
- Data Sheet - Callastim S
- SDS - Cellastim S
- Guidelines for Use - Cellastim S
- Application Note - Cellastim S – Reconstitution
- Video - rHSA Reconstitution Video Protocol

8. ORDERING INFORMATION

Cellastim S	***Product #***
GMP-10 g bottles	777HSA017S-10g
GMP-100 g bottles	777HSA017S-100g
GMP-1 kg bottles	777HSA017S-1kg

Performance. Defined.

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