Technical Data Sheet

Recombinant human Flt3L protein

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Lot Specific Information

Lot Number: **Lot Specific***

Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Shelf Life

This product has a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended.

Product Information

Catalog Number:	**RP087**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Generation of iPSC-derived myeloid and lymphoid progenitors Differentiation of myeloid cells into dendritic cells Generation of iPSC-derived dendritic cells Maintenance of peripheral blood cells
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in sterile-filtered water at >50 µg/ml. Once reconstituted, store in single-use aliquots to avoid freeze-thaw cycles. Store reconstituted protein at -20 °C to -80 °C for a maximum of 12 months or until the expiry date if sooner.
Sterility:	Sterile
Production:	Microbial. Expressed in E. coli
Molecular Weight:	17.6 kDa (monomer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant human Flt3L protein (Fms-like tyrosine kinase 3 ligand) is a hematopoietic cytokine composed of a homodimer of two short-chain α-helical bundles, released by bone marrow and thymic stromal cells such as osteoblasts, fibroblasts, endothelial and perivascular cells. Flt3L specifically binds the type III receptor tyrosine kinase Flt3 (Flk-2) on hematopoietic stem cells, early myeloid and lymphoid progenitors and dendritic cells, triggering STAT3 signaling. Together with other cytokines, it stimulates the survival, proliferation and differentiation of early progenitors including dendritic cells, NK cells and B cells, and it is indispensable for differentiation of hematopoietic stem cells into the dendritic cell lineage and for initiating antigen presentation and immune responses. In culture, Flt3L supports the expansion and differentiation of hematopoietic stem cells, differentiates iPSCs or peripheral blood monocytes into dendritic cells and acts synergistically with GM-CSF on myeloid progenitors, and it is investigated in CAR T cell and engineered TCR immunotherapy and hematopoietic stem cell mobilization, making it a key reagent for hematopoiesis and immunology research. This protein is optimized for in vivo and functional applications: low-endotoxin, tag-free, and carrier-free, supporting reproducible performance in demanding preclinical and bioactivity studies. A GMP-grade version of this protein is available for cell and gene therapy manufacturing. Contact us at customerservice@bioxcell.com for details. Species reactivity: human. Species similarity: mouse - 70%.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at

https://bioxcell.com/faqs.

Store lyophilized protein between -20 °C and -80 °C until the date of expiry. Avoid freeze-thaw cycles

Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com

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