

Quality. Experience. Growth.

PLTMax[®]

**Human Platelet Lysate
with the Longest**

Clinical Experience!

EVOLVING WITH YOU!



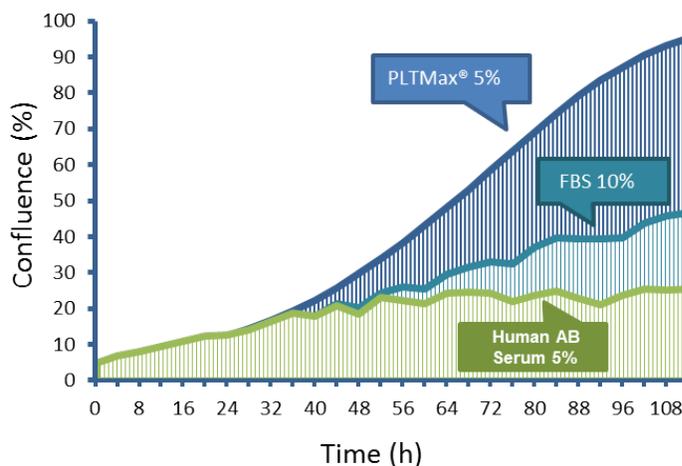
Cell therapy is changing medicine, and we want to be your partner in change. **PLTMax[®]** has the proven track record of successful clinical use that you demand. Originally developed as an animal serum-free, cell culture supplement, **PLTMax[®]** was the first commercially available human platelet lysate.

We do more than deliver the highest quality products to you — we provide support for your clinical research as well. **PLTMax[®]** has been a critical ingredient in Phase I, Phase II, and Phase III trials in North America, Europe, South America, Middle East, Asia, and Australia. It has been used to grow cells for hundreds of patient samples, and used to culture bone marrow and adipose derived MSC and other primary cell cultures. The first GMP platelet lysate on the market, the best of its kind on the market, and a master file with the FDA to accelerate your application. **Our quality and experience mean more growth for you!**

From bench to bedside, we are with you all the way! **Mill Creek Life Sciences** is dedicated to meeting ALL quality requirements to serve our customers. GMP media supplements are our only business, so **PLTMax[®]** is available when you need it, as is our support. Visit our website, request a sample, and **see the PLTMax[®] difference!**

Less Supplement; More Growth!

Cells grown in **PLTMax[®]** at half the concentration of fetal bovine serum double in half the time.



Mill Creek Life Sciences provides the tools and technologies to support the development and application of cellular and biologic therapeutics. Mill Creek technology was licensed from discoveries at Mayo Clinic, one of the world's leading non-profit medical centers. Mayo Clinic's Rochester campus is located adjacent to Mill Creek Life Sciences. Both organizations are committed to discovering and applying innovative approaches to patient care.



Master File with the FDA

Gamma irradiated hPL available

Manufactured under cGMP in large batches to reduce lot-to-lot variation

Great for generating cells in large scale bioreactors

Increased cell growth kinetics

Contains growth factors and proteins that maximize MSC growth

More cost effective alternative to serum-free media

Provides an optimal environment for cell culture and drug discovery

Effective with MSCs and other primary cells

PLTMax[®]



About PLTMax[®]

PLTMax[®] is an animal serum-free product derived from human platelets. PLTMax[®] is used as a manufacturing component in the generation of adult stems cells in clinical trials in North America, Europe, South America, the Middle East, Asia and Australia (Phase I to Phase III) in indications including neurology, nephrology, gastrointestinal disease, wound repair and cardiology. A Master File for PLTMax[®] is registered with the FDA and is cross-referenceable. Contact us for more information on the MF.

PRODUCT	CATALOG #	SIZE
PLTMax [®] Research Grade	PLTMax27R	27mL
	PLTMax100R	100mL
	PLTMax500R	500mL
	PLTMax1000R	1,000mL
PLTMax [®] Clinical Grade (GMP)	PLTMax27GMP	27mL
	PLTMax100GMP	100mL
	PLTMax500GMP	500mL
	PLTMax1000GMP	1,000mL



Using PLTMax[®]

- Thaw at 37°C or 4 °C. Thawing at 4 °C can increase the likelihood of precipitates forming in the product.
- It is not recommended to expose PLTMax[®] to repeated temperature changes that could affect the integrity of its components. For that reason, we recommend thawing the product and preparing aliquots as soon as it is received.
- Aliquots can be stored at -20°C or colder protected from light. Storage at 4°C is recommended for periods no longer than 2 weeks.
- Complete media can be prepared, aliquoted and stored at -80°C for up to 9 months. Do not store complete media at 4°C for longer than 2 weeks.
- Filtration of PLTMax[®] by itself is not recommended. Filtration of complete media containing PLTMax[®] may be performed, if necessary.

Culture Conditions Using PLTMax[®]

- Cell seeding should be performed following the general guidelines for the specific cell type. For Mesenchymal Stem Cells (MSCs), cells are typically plated at approximately 2x10³ – 5x10³ cells per cm².
- For MSCs, PLTMax[®] can be used at 5% vol/vol in a typical cell culture medium such as DMEM or α-MEM. If the basic media doesn't contain Glutamine, a source of L-Glutamine will need to be added to the media at a final concentration of 2mM. For other types of cells, the concentration of PLTMax[®] will need to be titrated according to the application (a titration from 2% vol/vol to 10% vol/vol is

recommended to establish the percentage of PLTMax[®] needed for the cell type to use).

- Due to the presence of certain plasma components such as fibrinogen and coagulation factors, the use of PLTMax[®] involves the addition of heparin to the cell culture media at a final concentration of 2U/mL to minimize clotting.
- Do not allow primary MSC confluence to exceed 70-80%.

Particulate Formation

Particulate formation or clotting in PLTMax[®] is normal. Filtration is not recommended. Particulate formation can be minimized by avoiding freeze/thaw cycles or by preventing extended storage at 4°C. PLTMax[®] shows no loss of function even in the presence of large particulates in the supplement. If a specific application requires minimizing the presence of particulates, avoid the particles by pipetting around them.

References (see website for additional references)

- Crespo-Diaz R, Behfar A, Butler GW, et al. Platelet lysate consisting of a natural repair proteome supports human mesenchymal stem cell proliferation and chromosomal stability. *Cell Transplant*. 2011;20(6):797-811.
- Staff NP, Madigan NN, Morris J, et al. Safety of intrathecal autologous adipose-derived mesenchymal stromal cells in patients with ALS. *Neurology*. 2016 Nov 22;87(21):2230-2234.

- Aho JM, Dietz AB, Radel DJ, et al. Closure of a Recurrent Bronchopleural Fistula Using a Matrix Seeded With Patient-Derived Mesenchymal Stem Cells. *Stem Cells Transl Med*. 2016 Oct; 5(10):1375-1379.

Safety Information and Precautions

- Products not intended for direct use in animals or humans.
- All PLTMax[®] donors have been tested for infectious diseases; however, as a blood derived product, PLTMax[®] should be handled and treated as potentially infectious.
- Universal precautions for handling and disposal of biological products should be used when working with PLTMax[®].