

# Enhancing Stem Cells & Regenerative Medicines

InVitria offers animal-free and defined media components that provide optimal performance and regulatory efficiency for stem cell. These components give you the confidence and consistency of a recombinant component without sacrificing the performance you desire!



## Stem Cell Media Components by InVitria:



**Optiferrin™** is a recombinant human transferrin that offers significant regulatory advantages due to its safety and consistency. Optiferrin is a universal iron carrier in cell culture, and can replace iron chelators.



**Cellastim™** is a recombinant human albumin specifically optimized for cell culture applications.



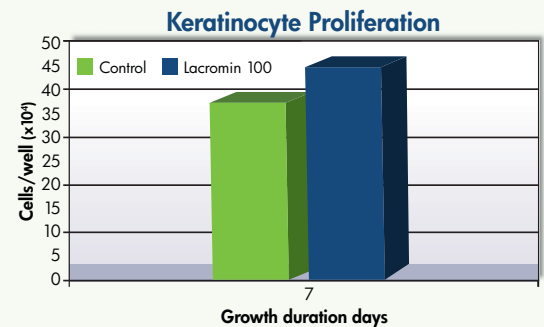
**Lacromin™** is a recombinant human lactoferrin that is a multi-functional protein that provides unique benefits for stem cell and regenerative medicine applications.

## Cell Lines with Positive Response to Cellastim and Lacromin

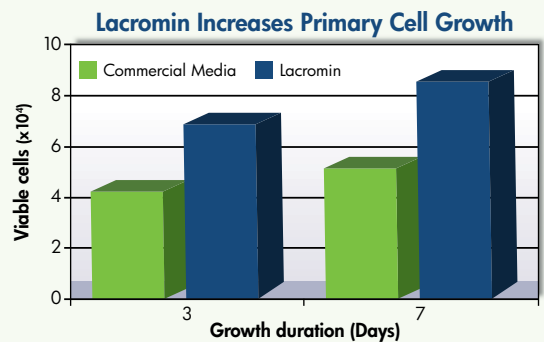
- Embryonic stem
- iPS
- Mesenchymal stem
- Neural
- Cardiac
- Liver
- Kidney
- Osteoblast
- Keratinocyte (Prof. Li, U of Miami) - Figure 1.
- Fibroblast (Prof. Li, U of Miami) - Figure 2.

## Benefits for Stem Cells & Regenerative Medicine

- Animal-free, regulatory compliant
- Eliminates the need for FBS, HSA and KSR (Ying et al., Nature Letters, 2008)
- Enhances cell growth (Huang et al., In Vitro Cell. Dev. Biol., 2008)
- Maintains undifferentiated cells
- Eliminates the need to coat plates for adherent cell lines
- Well defined and consistent



**Figure 1.** Significant effects of Lacromin on normal human skin keratinocyte cell growth were observed at the concentration of 100 mg/L at day 7 ( $P < 0.001$ ) compared with the control group. Normal human skin keratinocytes were grown in EpiLife base medium with human keratinocyte supplements (HKGS) (CAScade) and without transferrin, either alone (control) or supplemented with Lacromin.



**Figure 2.** Significant effects of Lacromin on normal human skin fibroblast cell growth were observed at the concentration of 100 mg/L at day 3 ( $P < 0.05$ ) and day 7 ( $P < 0.01$ ) compared with the control group.

E-mail us at [info@InVitria.com](mailto:info@InVitria.com) or call 1-800-916-8311.  
Order online at [www.InVitria.com](http://www.InVitria.com).

