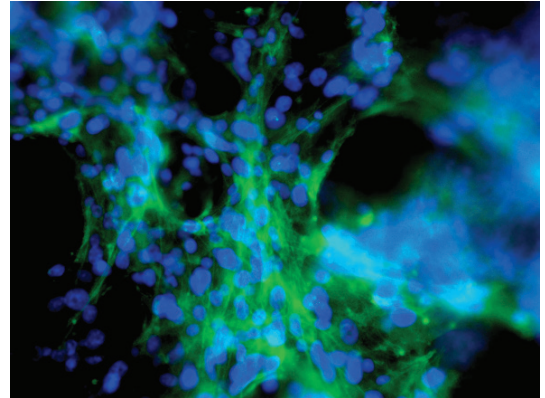


A tunable hydrogel with a high concentration of RGD ligands

VitroGel RGD-PLUS is a ready-to-use tunable hydrogel system modified with a high concentration of RGD cell adhesive peptide, promoting the cell attachment and cell-matrix interactions during the 3D cell culture. This hydrogel system has 3X RGD peptide compared to regular VitroGel 3D-RGD, which maintain a high level of integrin binding activities even after hydrogel dilution



- **Perform procedure at room temperature with a simple mixing step.**
- **Pure synthetic. Better batch to batch consistency.**
- **Adjustable hydrogel strength.**



3D cell culture process can be done in 20 min
(includes a 10-15 min waiting time for hydrogel stabilization)



Ready-to-use

Single vial system. Just mix with your cells and you are DONE!



Without undesired proteins

VitroGel 3D is an animal origin-free polysaccharide hydrogel system.



Room temperature stable

The hydrogel system is room temperature stable with neutral pH. Get rid of your ice bucket!



Transparent

The hydrogel system is transparent and compatible to different imaging systems for cell observation.



Easy Cell harvesting

After 3D cell culture, cells can be easily harvested from the hydrogel by using standard centrifuge methods.



Injectable

Using the right mixing ration, the hydrogel becomes injectable. Bridge into *in vivo* studies.

3D CELL CULTURE OF OP9 CELLS IN BOTH VITROGEL 3D-RGD AND VITROGEL RGD-PLUS

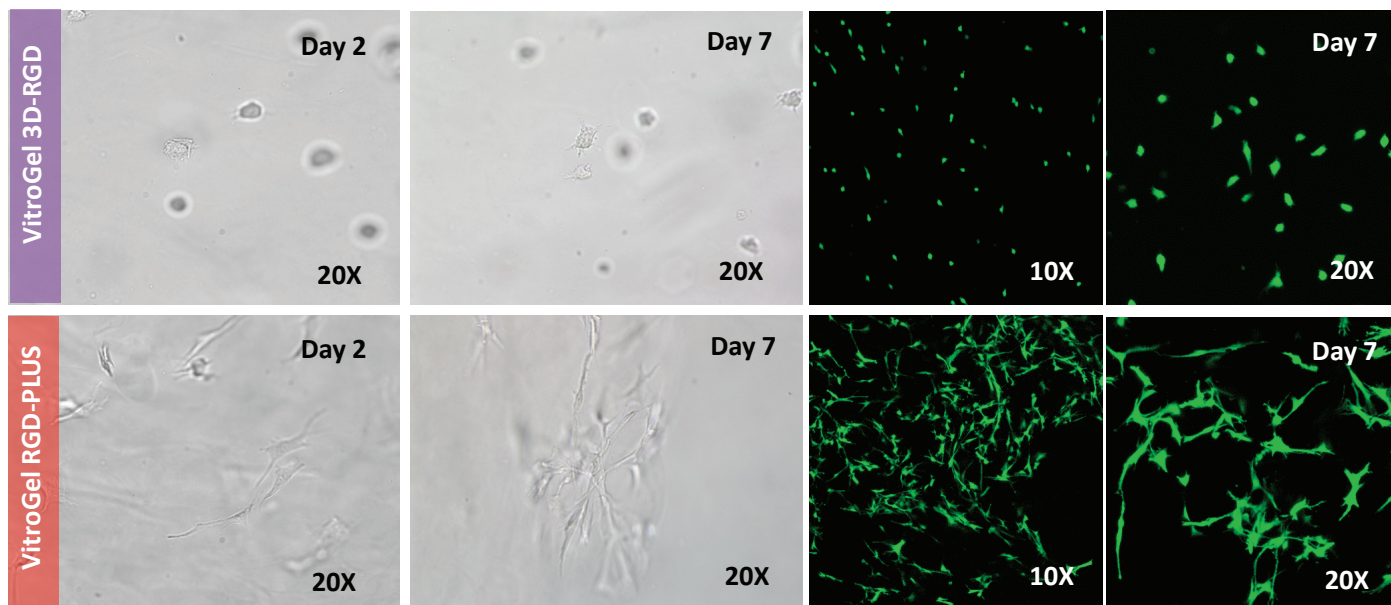


Figure 1. 3D culture of OP9 cells in both VitroGel 3D-RGD and VitroGel RGD-PLUS. (both hydrogels have been prepared at 1:3 dilution with VitroGel Dilution Solution (Type 1), The images were taken on day 2 and 7)

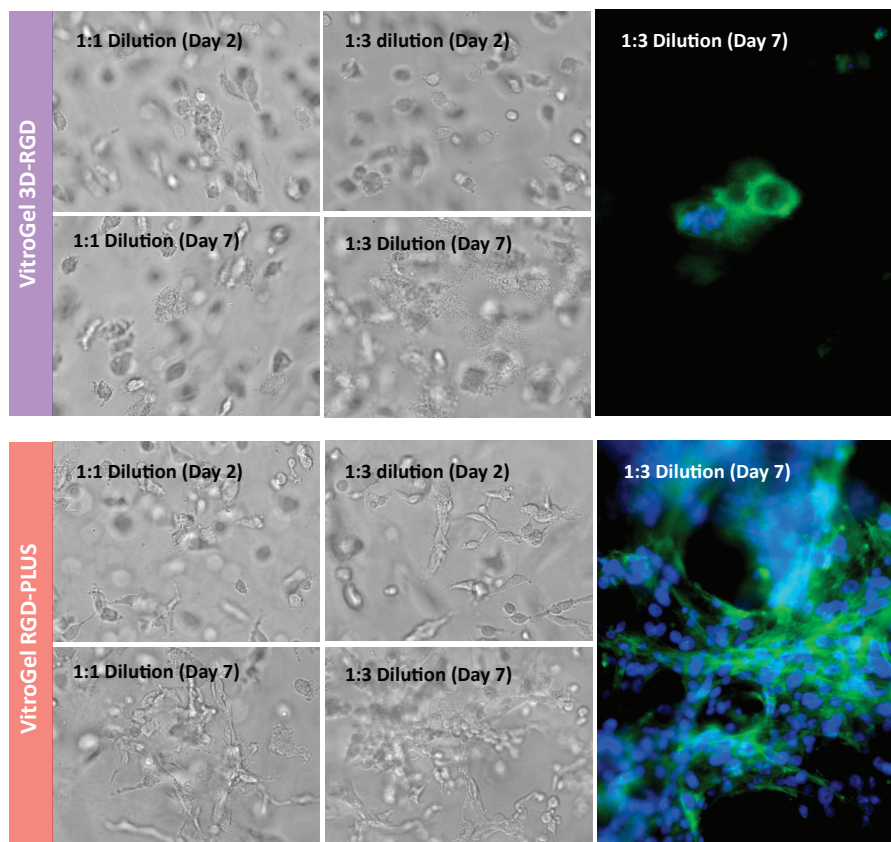


Figure 2. 3D culture of U-87 MG cells in both VitroGel 3D-RGD and VitroGel RGD-PLUS. Cells can grow in 3D hydrogel at 1:1 and 1:3 dilution of both hydrogel. However, the morphologies of the 3D cell culture are very different. Unlike the spheroids structure in VitroGel 3D-RGD, U-87 MG cells perform more stretched morphology and cell-cell networking structure in VitroGel RGD-PLUS which indicate a better cell-cell and cell-matrix interaction.