

VitroGel®

· Xeno-free · 2D / 3D Matrix



3D cell Culture 과정, 단 20분!!

(includes a 10-15 min waiting time for hydrogel stabilization)



Add cells



Wait 10-15 min



Add top medium & incubate



Cell harvesting

releasing buffer가 따로 필요없다!
손쉽게 Harvest가능!



Injectable

Tumor Xenograft 추천!!



Ready-to-use
Room Temp 안정!!!



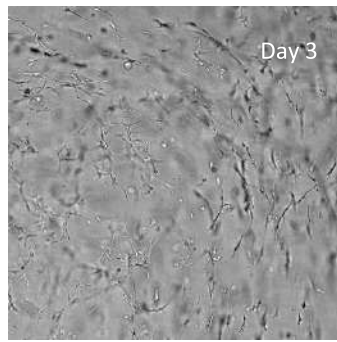
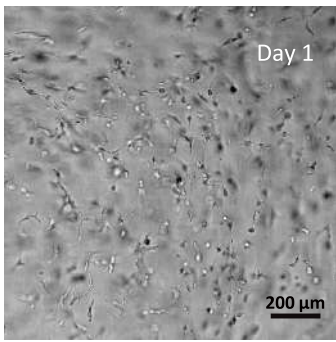
Fast gelation



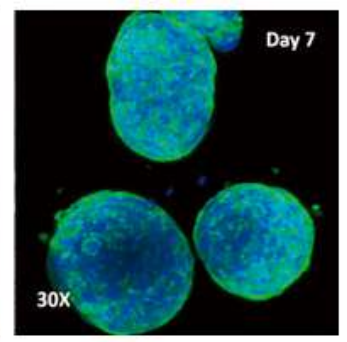
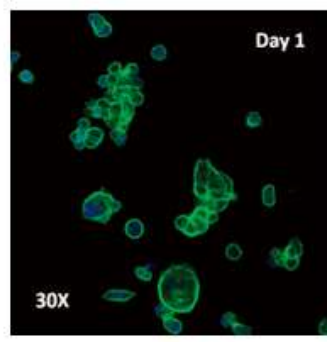
Transparent



Permeable

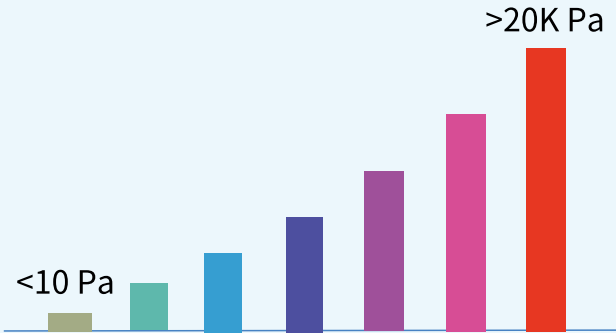


3D Cell culture bone marrow cells (OP9) in VitroGel



Human colon cancer cells (HCT 116) cells cultured on top of VitroGel hydrogel

Tunable hydrogel strength



10 ~ 4000 Pa of G' of regular products at dilutions. Customized high concentration product to reach over 20K Pa

Comparison Benefits Chart

	VitroGel	Basement membrane matrix	Polymer matrix	Hanging Drop Plate
Ready-to-use	✓	✗	✓	✓
Mimic Natural ECM	✓	✓	✗	✗
No undesired growth factors	✓	✗	✓	✓
Room temperature operation	✓	✗	✓	✓
Neutral pH	✓	✗	N/A	N/A
Cell harvesting	✓	✗	✗	✓
Transparent	✓	✓	✗	✓
Modifiable for cell adhesion	✓	✓	✓	✗
Control hydrogel stiffness	✓	✓	✗	✗
Injectable	✓	✓	✗	✗

VitroGel™ Cell Recovery Solution



- Fast - VitroGel 로 부터 15분 내 Cell recovery
- SAFE - Maintain High Cell Viability
- Enzyme Free
- Neutral pH
- Works at 37 °C
- Store at 15-30 °C

References

Feng W, Li-ping N, Shi-feng Z, Yang L, Ze-yu W, Jing-cheng W, Xin-min F, Liang Z. Injectable Hydrogel Combined with Nucleus Pulposus-Derived Mesenchymal Stem Cells for the Treatment of Degenerative Intervertebral Disc in Rats. *Hindawi*. 2019. doi:10.1155/2019/8496025

Cristina B, Linda C, Anna M. F, Laura C, Ugo P, Gabriella S, Orazio F. c-Myc shuttled by tumour-derived extracellular vesicles promotes lung bronchial cell proliferation through miR-19b and miR-92a. *Cell Death and Disease*. 2019;10:759. doi:10.1038/s41419-019-2003-5

Marzia D, Gustavo C, Antimo M, Gabriella C. Nerve Growth Factor Induces Proliferation and Aggressiveness in Prostate Cancer Cells. *Cancers*. 2019. doi:10.3390/cancers11060784

Min X, Jun Q, Rong K, Beidi Z, Wei W, Qing Y. Synergistic effects of stromal cell-derived factor-1 α and bone morphogenetic protein-2 treatment on odontogenic differentiation of human stem cells from apical papilla cultured in the VitroGel 3D system. *Cell and Tissue Research*. 2019. doi:10.1007/s00441-019-03045-3

Pichaya T, Xiaoyang L, Dylan D, Scott N, Francis H, Zhenfeng D. Establishment and characterization of a recurrent osteosarcoma cell line: OSA 1777. *Journal of Orthopaedic Research*. 2019. 10.1002/jor.24528

Li X, Seebacher NA, Xiao T, Hornicek FJ, Duan Z. Targeting regulation of cyclin dependent kinase 9 as a novel therapeutic strategy in synovial sarcoma. *J Orthop Res*. 2019;37: 510-521. doi:10.1002/jor.24189

Akamandisa MP, Nie K, Nahta R, Hambardzumyan D, Castellino RC. Inhibition of mutant PPM1D enhances DNA damage response and growth suppressive effects of ionizing radiation in diffus intrinsic pontine glioma. *Neuro-oncology*. 2019. doi:10.1093/neuonc/noz053

** Order Information

Cat #	제품명	Cat #	제품명
TWG001	VitroGel 3D (10 mL)	TWG003	VitroGel RGD (10 mL)
TWG001S	VitroGel 3D (2 mL)	TWG003S	VitroGel 3D-RGD (2 mL)
TWG002	VitroGel 3D-RGD (10 mL)	MS01-100	VitroGel Dilution Solution Type 1
TWG002S	VitroGel 3D-RGD (2 mL)	MS02-100	VitroGel Dilution Solution Type 2
		MS03-100	VitroGel Cell Recovery Solution