

Product

KSB® iNSC Cell-Lines

Retain their proliferation and differentiation potential for more than 15 passages!

KSB® hDF-iNSC

KSB® hUCBMSC-iNSC

KSB® hNPCDF-iNSC

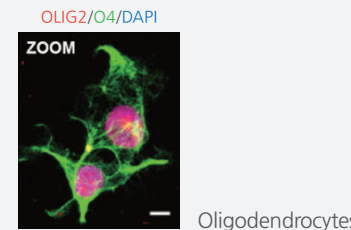
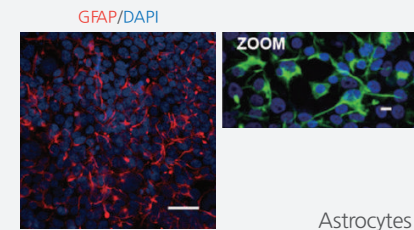
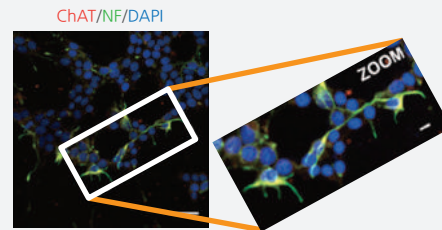
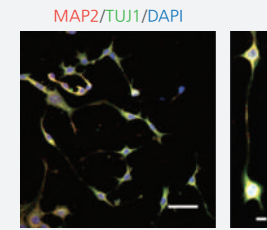
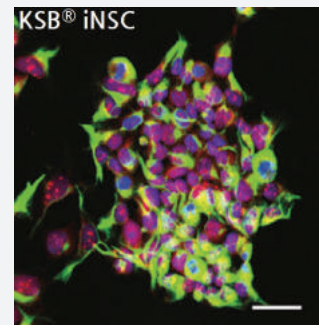
☑ Ready-to-use

☑ Derived from various cell source

☑ Multipotency

- Neurons
- Astrocytes
- Oligodendrocytes

- Each vial contains > 5 × 10⁵ viable cells!
- High-purity cells!
- Capable of both adherent cell culture and sphere culture!



KSB® hNPC (Niemann-Pick Type C Disease) DF-iNSC

Autophagy



2016 Nobel Prize in PHYSIOLOGY or MEDICINE

Niemann-Pick Type C Disease

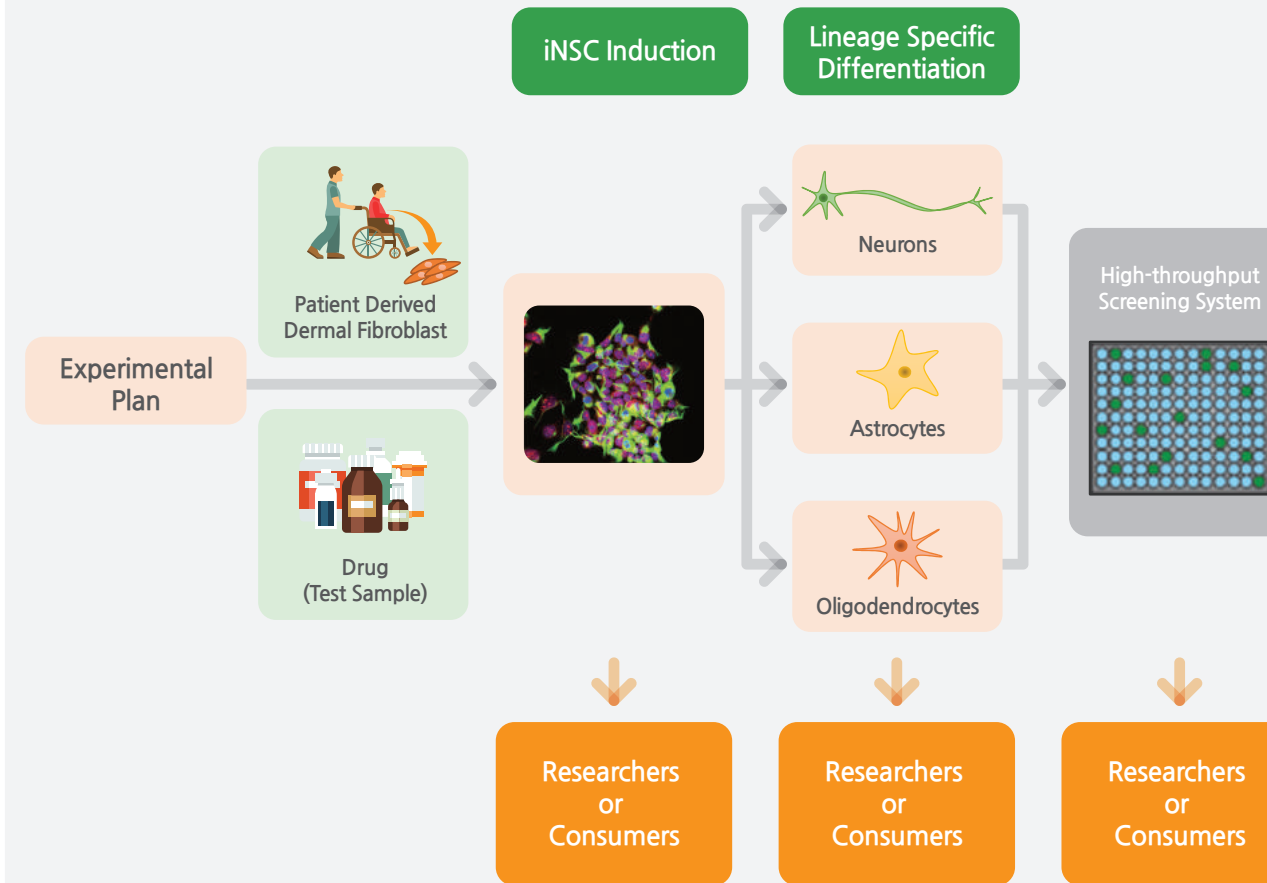
hNPC is caused by genetic mutation in the *NPC1* gene. Cholesterol and glycolipid are accumulated in the lysosome caused by autophagy dysfunction. hNPC is also known as childhood Alzheimer's disease.

- hNPC-DF has **UNBALANCED AUTOPHAGY LEVEL!**
- K-hNPCDF-iNSC is useful for **AUTOPHAGY STUDY!**

Product

KSB® Toxicology & Drug Screening

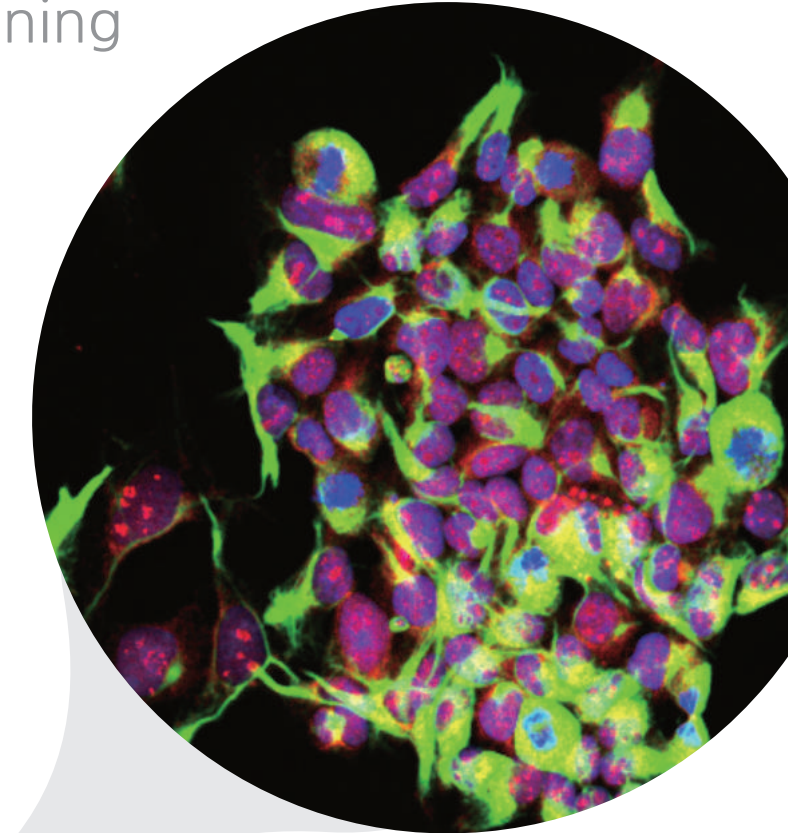
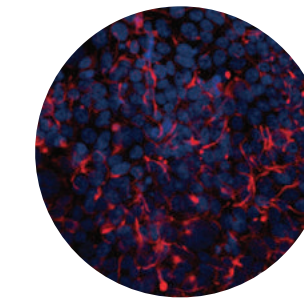
Drug and toxicological screening using state-of-the-art iNSC induction technology!



- iNSCs can be differentiated into neurons, astrocytes, and oligodendrocytes for drug screening or basic neurological research.
- Kangstem Biotech provides
 1. Platform technology for drug or toxicological screening.
 2. iNSC making service for hDF, hMSC, or blood cells.

Induced Human Neural Stem Cells

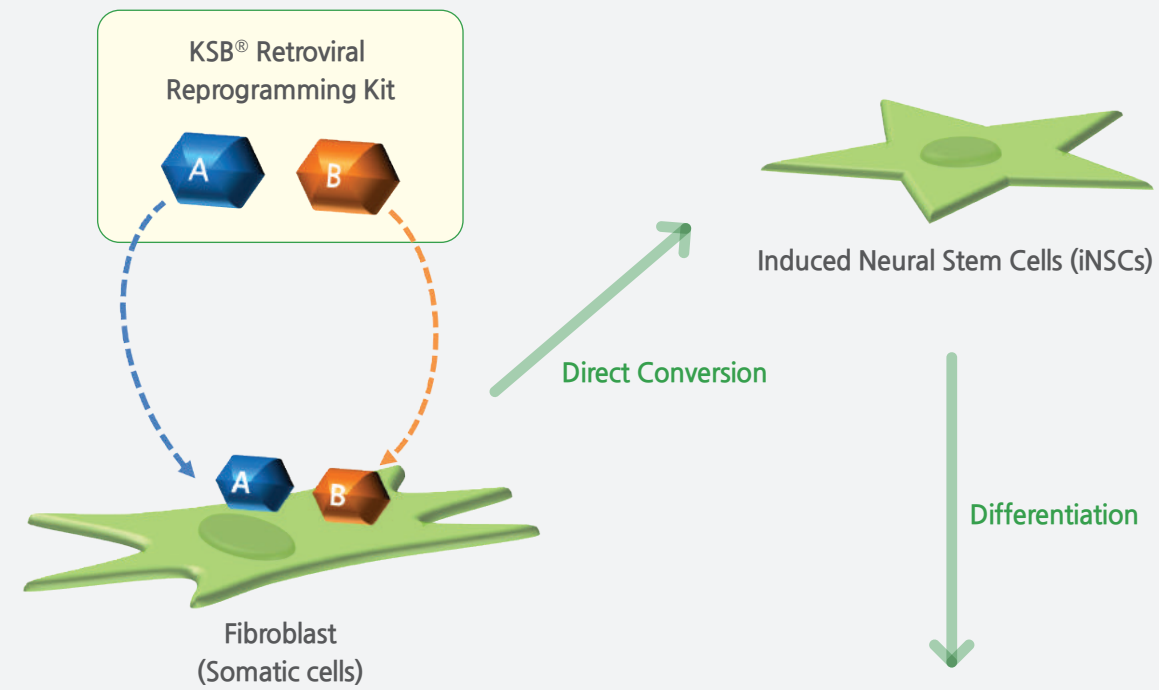
Toxicology & Drug Screening



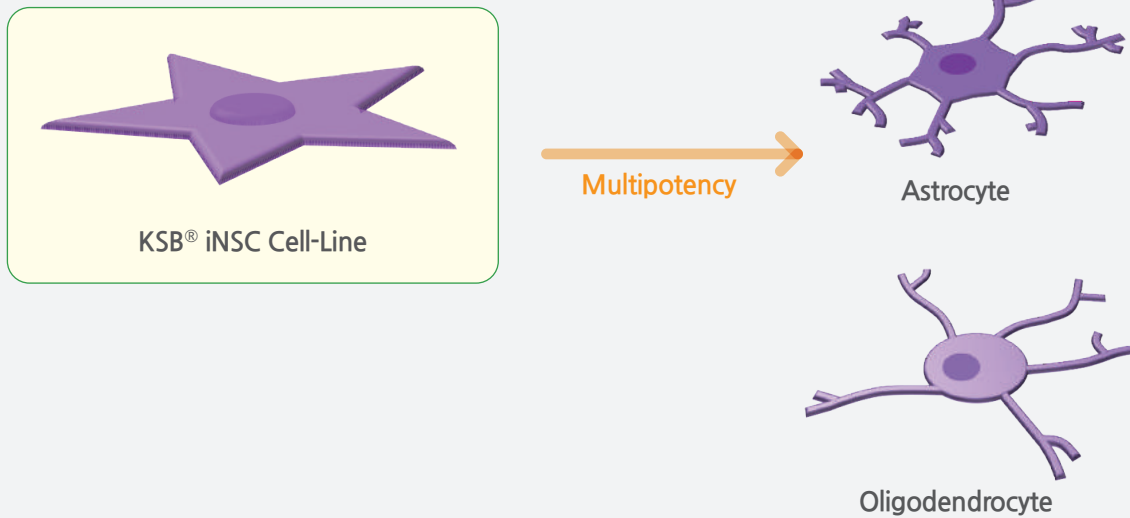
Concept

Direct Conversion

KSB® Retroviral Reprogramming Kit
useful for direct conversion and iNSC studies.



KSB® Cell-Lines
useful for neuroscience research.

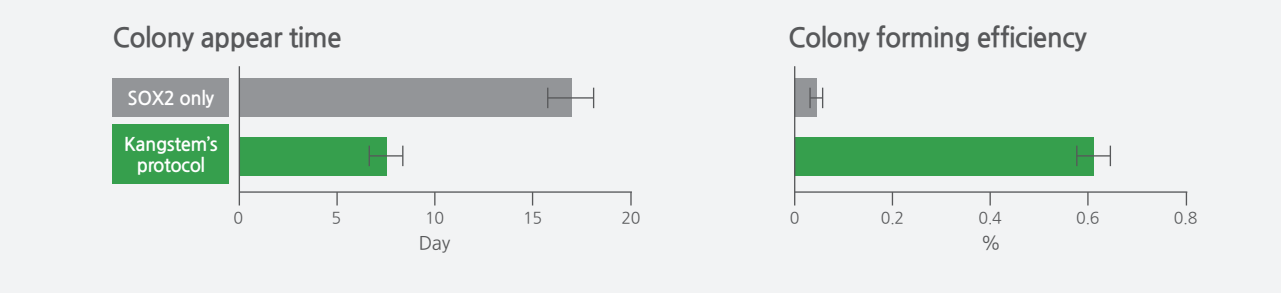
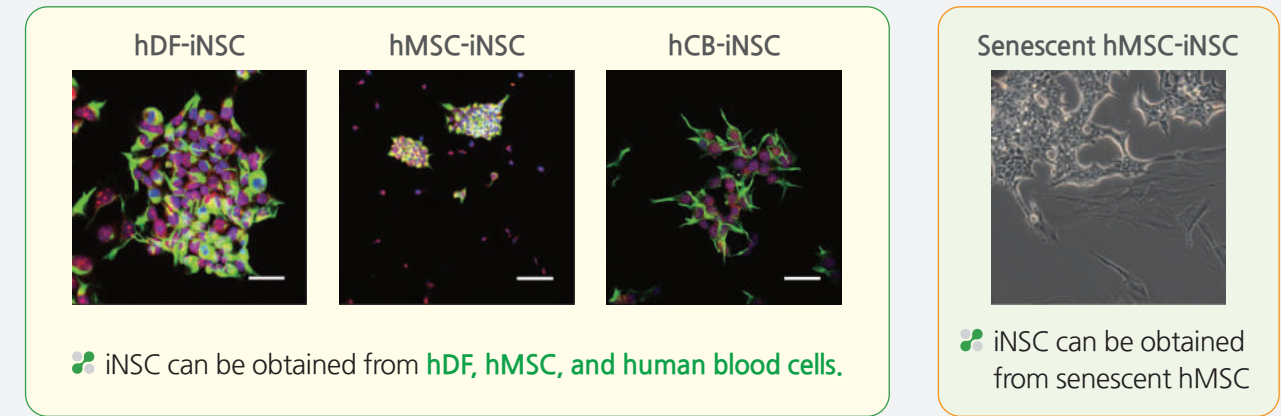
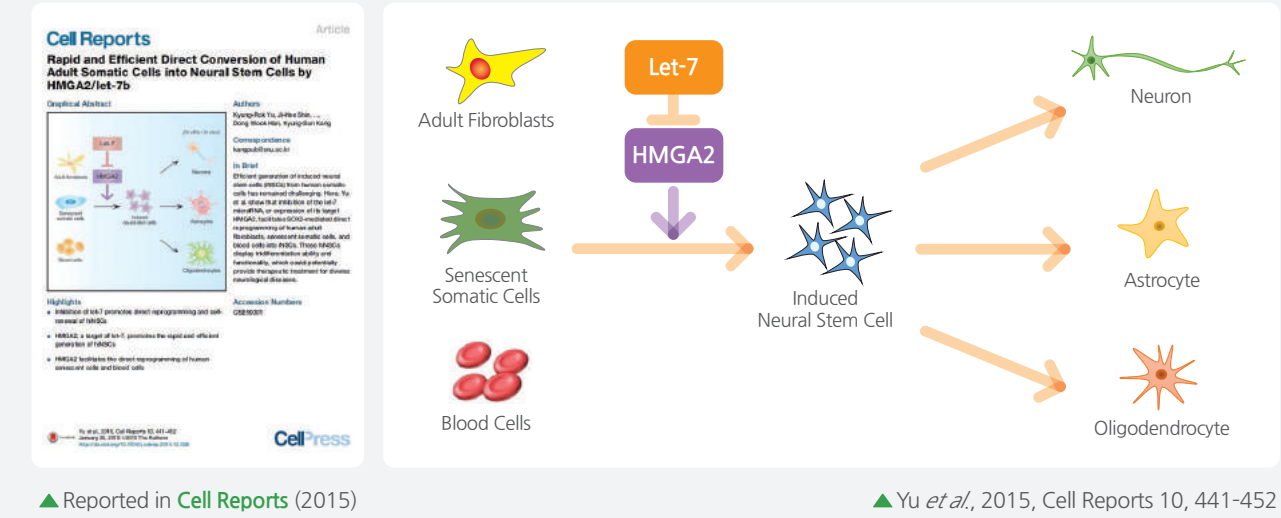


Paper

Cell Reports

Kangstem Biotech

developed Novel iNSC Induction Protocol



- NESTIN⁺/PAX6⁺ iNSC colony formation time was **significantly faster** than that of SOX2 only induction method.
- NESTIN⁺/PAX6⁺ colony forming efficiency was **10 times higher** than that of SOX2 only induction method.

Product

KSB® Retroviral Reprogramming Kit

A Simple and Efficient Induction Kit!



- Only **2 Factors** Required
- iNSC colonies are obtained within **1 to 2 weeks**
- Colony Forming Ratio: About **0.5%**
- Applicable to **various cell sources**: human dermal fibroblasts (hDFs), human mesenchymal stem cells (hMSCs), human blood cells (hCBs)

