L8000	Stem Cell Library	340	cpds

Stem cells can differentiate into other types of cells and can divide to produce more of the same type of stem cells. For example, embryonic stem cells can differentiate into all the specialized cells—ectoderm, endoderm and mesoderm. Somatic stem cells are thought to be limited to differentiating into different cell types of their tissue of origin. To generate enough specialized cells or tissues that can be used for specific purposes such as tissue regeneration, cell-based therapies, drug screening, or disease models, scientists (must control the cell fate of pluripotent stem cells) are currently working on methods to effectively differentiate stem cells into functional specialized cells. Natural and synthetic small molecules have been shown to be useful chemical tools for controlling and manipulating the fates of cells. For example, Glycogen synthase kinase 3β (GSK-3β) inhibitor could induce differentiation of neural progenitor cells (NPCs). Bone marrow stromal stem cells (BMSSCs) may have potential to differentiate in vitro and in vivo into hepatocytes following the treatment of inhibitor of histone deacetylase and some well-defined cytokines.

Stem Cell Differential Compound Library from TargetMol, a unique collection of 340 stem cell differentiation signaling targeted compounds, can be used for stem cell research and related drug screening (high throughput and high content screening).

- A unique collection of 340 stem cell differentiation signaling targeted compounds for high throughput and high content screening;
- Effective tool for research in regenerative medicine, stem cell differentiation signaling, and drug screening based on stem cells;
- Targets include Wnt, GSK-2, Hedgehog, JAK, ROCK, γ-secretase, etc.;
- Detailed compound information with structure, target, activity, IC50 value, and biological activity description;
- Structurally diverse, medicinally active, and cell permeable;
- NMR and HPLC validated to ensure high purity and quality;