



Small molecules for stem cell research

Features;

- Free from components of animal origin

Ordering Information

Product Name	Function	CAS RN [®]	Catalog Number	PKG Size
5-Aza-2'-deoxycytidine (Decitabine), Animal-Free	DNA methyltransferase inhibitor. Improves self-duplication ability on hematopoietic stem cells.	2353-33-5	18765-34	10 mg
CHIR99021, Animal-Free	GSK-3 inhibitor. Improves reprogramming efficiency and enhances the differentiation to cardiomyocyte and neurocyte.	252917-06-9	18764-44	5 mg
DAPT, Animal-Free	γ-Secretase Inhibitor. Enhances the differentiation from PSCs to neurocyte.	208255-80-5	18767-14	5 mg
Dorsomorphin Dihydrochloride, Animal-Free	AMPK inhibitor. Enhances the differentiation from PSCs from cardiomyocyte. Along with SB 431542 and CHIR99021, enhances the differentiation to PSCs.	1219168-18-9	18768-04	5 mg
17β-Estradiol, Animal-Free	Enhances the differentiation from PSCs to dopaminergic neuron.	50-28-2	18192-92	25 mg
IWP-2, Animal-Free	PORCN inhibitor; inhibits processing and secretion of Wnt. Enhances the differentiation from PSCs to cardiomyocyte.	686770-61-6	18175-64	5 mg
SB 431542, Animal-Free	TGF-βRI, ALK4 and ALK7 inhibitor. Improves reprogramming efficiency along with PO0325901 or thiazovivin.	301836-41-9	18176-54	5 mg
U0126, Animal-Free	MEK1 or MEK2 inhibitor. Maintains PSCs on undifferentiation.	109511-58-2	18766-24	5 mg
Y-27632 endotoxin tested, Animal-Free	P160ROCK inhibitor. Blocks apoptosis of dissociated PSCs and improves survival rate of cryopreserved PSCs.	129830-38-2	18188-04	10 mg

Related products

Product Name	CAS RN [®]	Catalog Number	PKG Size
Y-27632	129830-38-2	08945-71	1 mg
		08945-84	5 mg
		08945-42	25 mg

Activin A Solution, Human, Recombinant

Activin A is an important protein on regenerative medicine research because of maintaining pluripotency of hPSCs and helping differentiation to cardiomyocyte. This product obtained written confirmation of raw material eligibility from the PMDA(Pharmaceuticals and Medical Devices Agency): the pharmaceutical regulatory and review agency of the Japanese Ministry of Health, Labor and Welfare.

*Manufactured by AJINOMOTO CO., INC

Features;

- Free from components of animal origin
- Frozen solution; easy to use
- High purity and activity
- High batch homogeneity

	Nacalai Tesque	Company A	Company B	Company C
Host cell	<i>E.coli</i>	<i>E.coli</i>	CHO cell	Human cell
Endotoxin	< 0.01 EU/μg	NA	< 0.01 EU/μg	< 0.1 EU/μg
Purity	≥ 97% (SDS-PAGE)	≥ 97% (SDS-PAGE, HPLC)	> 95% (SDS-PAGE)	≥ 95% (SDS-PAGE)
Bio activity*1	WHO standard*2 ED50 ± 50% (K562)	ED50 ≤ 2.0 ng/mL (MPC-11)	ED50: 0.2 - 1.2 ng/mL (K562)	ED50: 0.5 - 5 ng/mL (MPC-11)
Form	Frozen liquid (0.1 mg/mL)	Lyophilized	Lyophilized	Lyophilized

*1: Measured by its ability to include hemoglobin expression in K562 human chronic myelogenous leukemia cells

*2: NIBSC code, 91/626

Product form

Concentration*	0.1 mg/mL with HPLC
N-terminal	Gly-Leu-Glu
Buffer	50 mM sodium acetate buffer, pH 4.6
Endotoxin	< 0.01 EU/μg (LAL method)
Sterilization	Sterilized with 0.2 μm filter

*As concentration of 1 mg packing size, #18585-81, may differ on each lot, contact us if you need information.

Reference

Takebe, T. et al. Massive and Reproducible Production of Liver Buds Entirely from Human Pluripotent Stem Cells. Cell Rep. 2017, 21(10), p. 2661-2670.

Note

Need an optimization of concentration for the first time.

Product information

Product Name	Storage	Catalog Number	PKG Size
Activin A Solution, Human, Recombinant	-80°C	18585-36	10 μg
		18585-94	50 μg
		18585-81	1 mg

Please note that this product is for research use only. Please contact us if you need clinical or regenerative medicine research graded Activin A.

For research use only, not intended for diagnostic or drug use.

