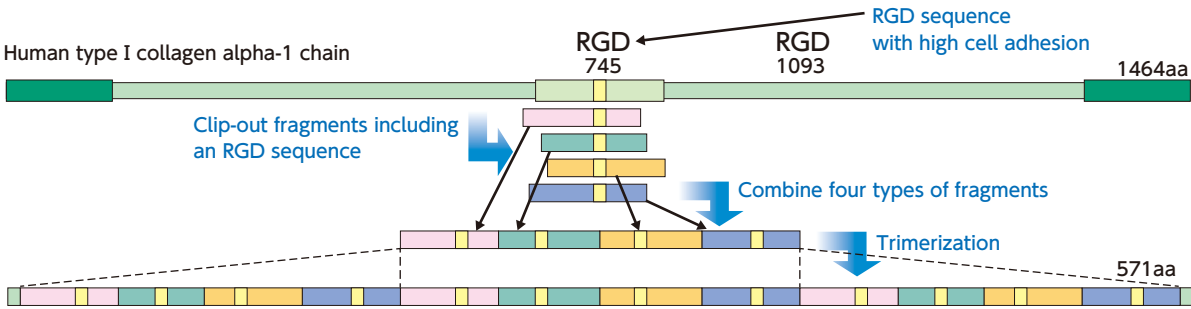


cel^lnest recombinant peptide based on human collagen type I

- High safety and bioacmpmpatibility
- High cellular adhesiveness
- Stable manufacturing quality
- High flexible formulation

- ✓ No animal-derived ingredients (xeno-free product)
- ✓ The biodegradable and bioabsorbable material which will not remain within the body
- ✓ RGD enriched with high cellular adhesion
- ✓ cellnest is manufacturing with recombinant technology from yeast with high reproducible quality
- ✓ For formulation into various forms, such as sponges, porous particles and granules



<< Actual cells tested >>
endothelial cells (HUVEC), keratinocytes (NHEK), myoblasts (C2C12), osteoblast-like (MC3T3E1), fibroblasts (3T3-L1), epithelial cell-like (CHO-K1, Vero, MDCK) and kidney cells(CV-1)

Product Name	Package Size	Wako Cat. No.
cel ^l nest recombinant peptide based on human collagen type I, 0.1% solution	20mL	635-30081
cel ^l nest recombinant peptide based on human collagen type I, lyophilized	100mg	638-30071



Listed products are intended for laboratory research use only, and not to be used for drug, food or human use. / Please visit our online catalog to search for other products from Wako; <http://labchem-wako.fujifilm.com/> This leaflet may contain products that cannot be exported to your country due to regulations. / Bulk quote requests for some products are welcomed. Please contact us.

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FUJIFILM
Value from Innovation



ES·iPS Cell Culture Reagents
for Regenerative Medicine

Product Map for ES · iPS Cell Culture Reagents

Feeder-Free Medium

StemSure hPSC Medium Δ
Animal-Free , Albumin-Free

Cytokines

Fibroblast Growth Factor (basic)
Activin A Solution

Low Molecular Compounds

CultureSure Y-27632
CultureSure CHIR99021, etc. → Details at P.4 - 5

Freezing Medium

StemSure Freezing Medium
CultureSure Y-27632

On-Feeder Medium

StemSure on-feeder hPSC Medium

Serum Replacement

StemSure Serum Replacement
for mouse ES cell and human iPS cell

Cell Dispersion

Trypsin-EDTA Solution

Laminin 511 is a laminin trimer with the chain composition α5, β1 and γ1. Laminin 511-E8 fragment has the same α6β1 integrin binding capacity as the full length Laminin 511.

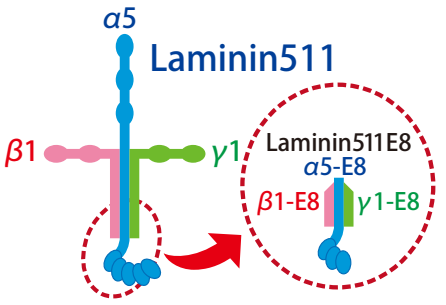
Extracellular Matrices

Vitronectin, Cellmatrix, etc.
iMatrix-511 [Matrixome Inc.]

- ◆ Recombinant laminin-511 E8 fragment
- ◆ Xeno-free
- ◆ Greater adhesive properties than vitronectin

Parts of Laminin

α Chain α1 α2 α3 α3 α5
β Chain β1 β2 β3
γ Chain γ1 γ1 γ1



Culture Medium

D-MEM, RPMI-1640, etc.

Cytokines

BMP-4, BDNF, SCF, VEGF, etc.

Low Molecular Compounds

CultureSure A-83-01
CultureSure CHIR99021 → Details at P.5
CultureSure SB431542

Cell Growth Factors

Albumin, Insulin, Transferrin, etc.

Maintenance Culture

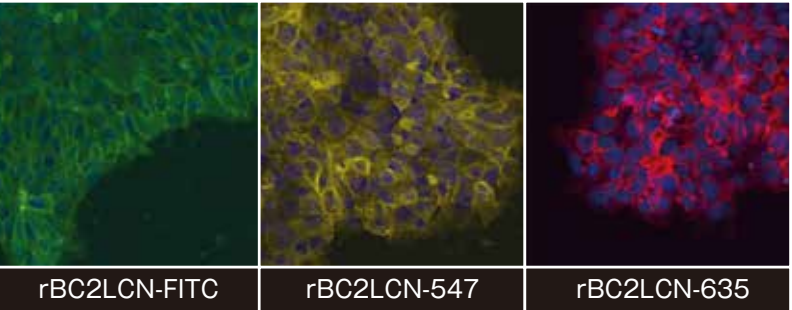
Differentiation

Quality Check

Elimination

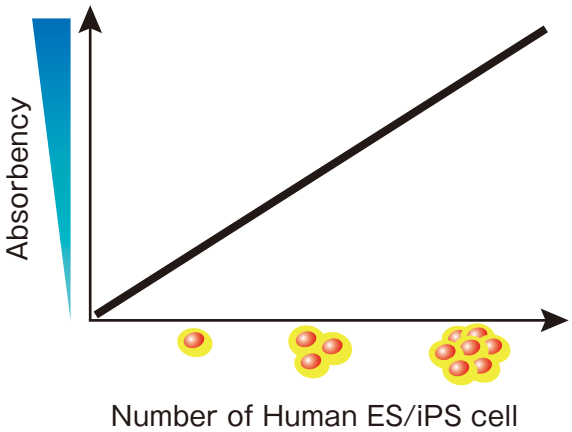
Undifferentiated Markers

rBC2LCN-FITC
rBC2LCN-547 → Details at P.6 - 7
rBC2LCN-635



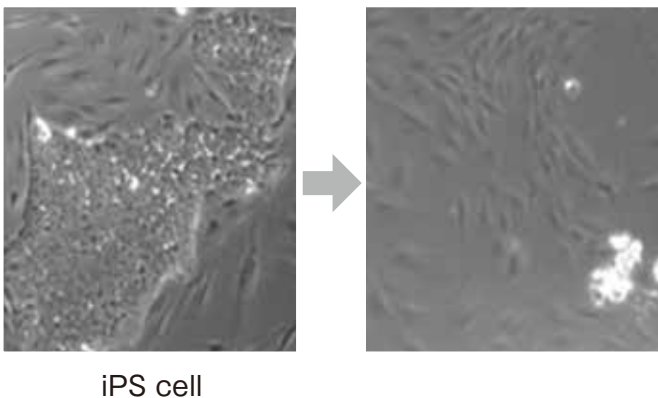
Monitoring of hPSCs

Human ES/iPS Cell Monitoring Kit



Elimination of hPSCs

rBC2LCN-PE23 → Details at P.6



INDEX

Product Map P.2~P.3
rBC2LCN Series P.6~P.7

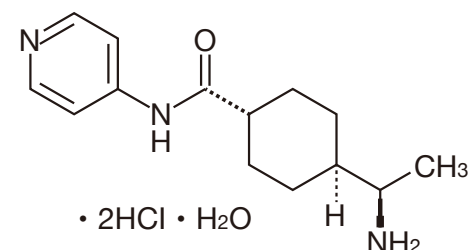
CultureSure Y-27632/ Y-27632, MF... P.4
Product List P.8 ~ P.11

CultureSure CHIR99021 ... P.5
cellnest P.12

ROCK Inhibitor -Safety use for cell culture applications-

CultureSure **Y-27632 / Y-27632, MF**

Y-27632 is **Selective and strong ROCK inhibitor**. It inhibits contraction of the vascular smooth muscle, infiltration of cancer cells, and regulation of cell differentiation caused by a signal transduction system of ROCK. Y-27632 enhances post-cryopreservation survival and cloning efficiency of human ES cells and human iPS cells.



CAS RN® 331752-47-7
C₁₄H₂₁N₃O • 2HCl • H₂O=338.27

MF has been registered in **Drug Master File in Japan (MF)**. We manage raw materials, conduct the validations of the manufacturing process and analytical tests and manufacture in the system obtaining permanently stable quality products.

- **Registered in MF**※2 Registration No. 227MF40013
- **Made in Japan** Manufacturing all from synthesis to packaging in Japan
- **Animal-Derived-Component-Free** Chemical synthetic products of non-use of animal-derived raw materials
- **High quality-stability** Continuous multiple lot pass record

	CultureSure Y-27632, 98%	Y-27632, MF, 98%	CultureSure 10mmol/l Y-27632 Solution, Animal-derived-free
Appearance	Powder	Powder	Liquid
Solubility	water, Ethanol	water, Ethanol	-
Mycoplasma test	passed	passed ※3	passed
Endotoxins test	less than 0.25EU/mg	less than 0.25EU/mg ※3	less than 3EU/ml
Other check	Cytotoxicity checked ※1	Viable cell count tested ※3	Sterility tested
Formulation	-	-	10mmol/l solution of Y-27632 in water

※1 human iPS cells 201B7 strain was used.

※2 It shall not be assumed that the validity and assurance of the drug substance's quality and adequacy are officially approved by MF registration.

※3 Mycoplasma test, Endotoxins test and Viable cell count test are product specification tests in each lot, but are not included in MF registration items.

Ready to Use!
It has been sterilized by filtration and is used as it is.

Reference

Ito, H., et al.: *Liver Int.*, **32**, 592 (2012).
 Claassen, DA., et al.: *Mol. Reprod. Dev.*, **76**, 722 (2009).
 Watanabe, K., et al.: *Nat. Biotechnol.*, **25**, 681 (2007).
 Nishimaru, K., et al.: *J. Pharmacol. Sci.*, **92**, 424 (2003).
 Kawamata, M., et al.: *Proc. Natl. Acad. Sci. USA*, **107**, 14223 (2010).
 Martin-Ibanez, R., et al.: *Hum. Reprod.*, **23**, 2744 (2008).
 Sakamoto, K., et al.: *J. Pharmacol. Sci.*, **92**, 56 (2003).
 Uehata, M., et al.: *Nature*, **389**, 990 (1997).

Endotoxin & Mycoplasma tested GSK-3β Inhibitor

CultureSure **CHIR99021**

CultureSure series
are passed endotoxin test and mycoplasma test.

CHIR99021 is **GSK-3β inhibitor**, which selectivity is high. This product does not show cross-reactivity to CDKs (Cyclin-dependent kinases). It has been reported that differentiation can be suppressed with high efficiency when ES cells are cultured in a medium containing CHIR99021 and PD0325901. **Endotoxin tested, mycoplasma tested, and cytotoxicity checked.**

	CultureSure CHIR99021	CultureSure 10mmol/l CHIR99021 DMSO Solution, Animal-derived-free
Appearance	Powder	Liquid
Assay (HPLC)	min. 97.0%	-
Solubility	DMSO	-
Formulation	-	10mmol/l solution of CHIR99021 in DMSO
Mycoplasma test	Passed	Passed
Endotoxins test	less than 0.05EU/mg	less than 2EU/mL (measured value)
Other test	Cytotoxicity checked ※1	Sterility tested

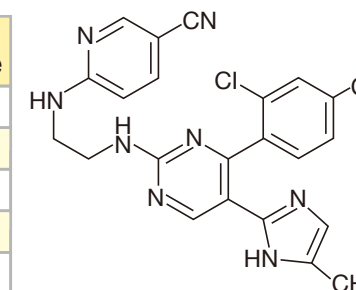
※1 human iPS cell 201B7 strain was used

Reference

Ying, QL., et al.: *Nature*, **453**, 519 (2008)

Product List

Product Name	Package Size	Wako Cat. No.
CultureSure Y-27632	1mg	030-24021
	5mg	036-24023
	25mg	034-24024
Y-27632, MF	5mg	259-00613
	25mg	257-00614
CultureSure 10mmol/l Y-27632 Solution, Animal-derived-free	300μL	039-24591
	1mL	035-24593
CultureSure CHIR99021	1mg	038-23101
	5mg	034-23103
	100mg	032-23104
CultureSure 10mmol/l CHIR99021 DMSO Solution, Animal-derived-free	300μl	038-24681
	1mg	034-24801
CultureSure A419259 Trihydrochloride (We cannot sell this product to United States for its patent.)	5mg	030-24803
	25mg	038-24804
	100mg	034-24806
	2mg	039-24111
CultureSure A-83-01	10mg	035-24113
	5mg	010-26741
A-83-01, MF	25mg	018-26742
	5mg	035-23971
CultureSure CKI-7 Dihydrochloride	1mL	039-24611
	5mg	034-24301
CultureSure IWP-2	25mg	030-24303
	5mg	031-24291
CultureSure SB431542	25mg	037-24293
	500mg	035-24294
	1mL	033-24631
CultureSure 5mmol/l SB431542 DMSO Solution, Animal-derived-free	5mg	193-18031
	25mg	199-18033
SB431542, MF		



CAS RN® 252917-06-9
C₂₂H₁₈Cl₂N₈=465.34

rBC2LCN Series – Lectin, Markers of Undifferentiated hPSCs –

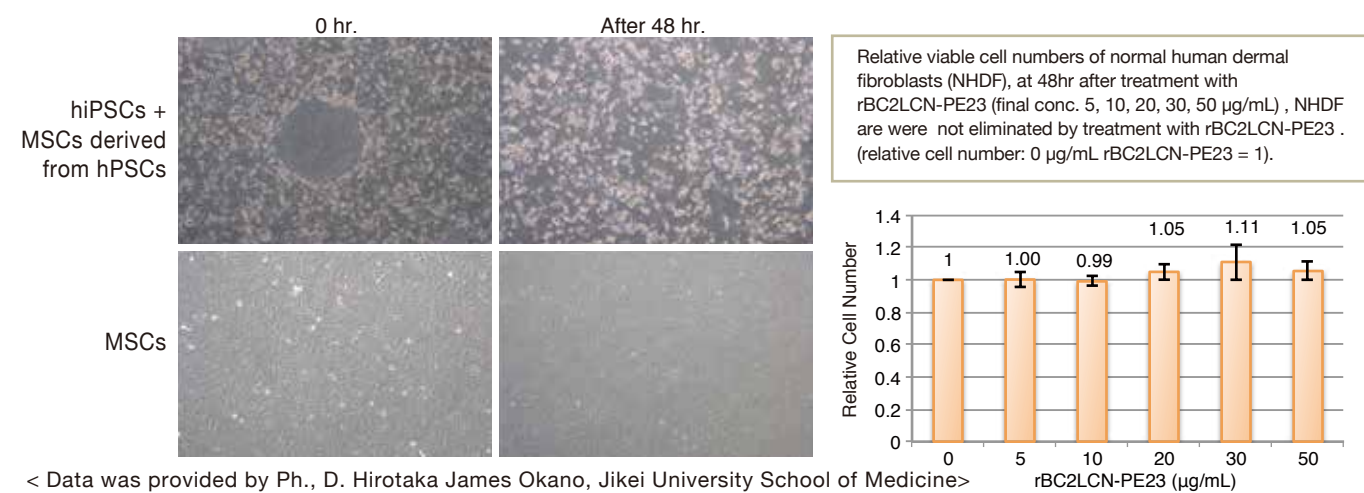
rBC2LCN(AiLecS1) is a recombinant lectin expressed in *Escherichia coli*. It has been identified as a protein capable of binding to sugar chain which exists on the surface of undifferentiated human ES/iPS cells (hPSCs), and may provide new opportunity for the imaging probe to the undifferentiated hPSCs. rBC2LCN is collaborative development product with National Institute of Advanced Industrial Science and Technology (Japan).

Undifferentiated hES/hiPSC Elimination Solution

rBC2LCN-PE23 is a recombinant lectin-toxin fusion protein of rBC2LCN with a catalytic domain of *Pseudomonas aeruginosa* exotoxin A. rBC2LCN-PE23 binds to, enters in and eliminates undifferentiated hPSCs.

- Selectively eliminate the remaining undifferentiated hPSCs after inducing differentiation
- Only add the reagent to cells in culture medium without dispersing the cells

Differentiated human iPS cells (hiPSCs) derived from a disease patient into mesenchymal stem cells (MSCs), and added rBC2LCN-PE23 (final conc. 10 µg/mL) to hiPSCs and MSCs in the culture medium. After 24 hours, the colony of hiPSCs began to collapse. And 48 hours, most of hPSCs were eliminated. On the other hand, MSCs were not affected rBC2LCN-PE23.



Product List

Product Name	Package Size	Wako Cat. No.
BC2LCN [AiLecS1] Lectin, recombinant, Solution	1mg	029-18061
	1mg × 5	025-18063
rBC2LCN-PE23 (Undifferentiated hES/hiPSC Elimination Solution)	100µL	180-03231
	100µL × 5	186-03233
rBC2LCN-FITC [AiLecS1-FITC]	100µL	180-02991
	100µL×5	186-02993
rBC2LCN-547 [AiLecS1-547] Labelled with yellow fluorescence dye, similar to Cy3	100µL	186-03211
rBC2LCN-635 [AiLecS1-635] Labelled with red fluorescence dye, similar to Cy5	100µL	185-03161
	100µL×5	181-03163
rBC2LCN Stripping Solution	10mL	182-03171

hES/hiPSC Staining Solution

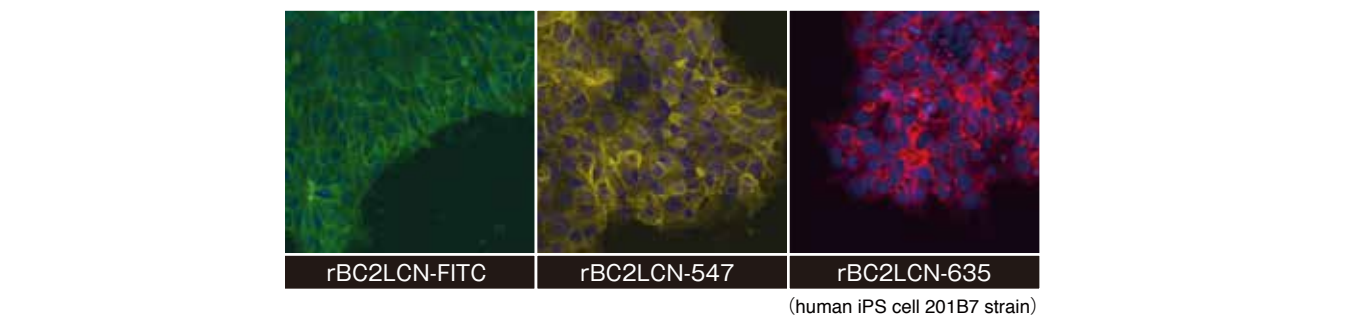
rBC2LCN-FITC (Ex 495 nm, Em 520 nm)

rBC2LCN-547 (Ex 551 nm, Em 565 nm)

rBC2LCN-635 (Ex 634 nm, Em 654 nm)

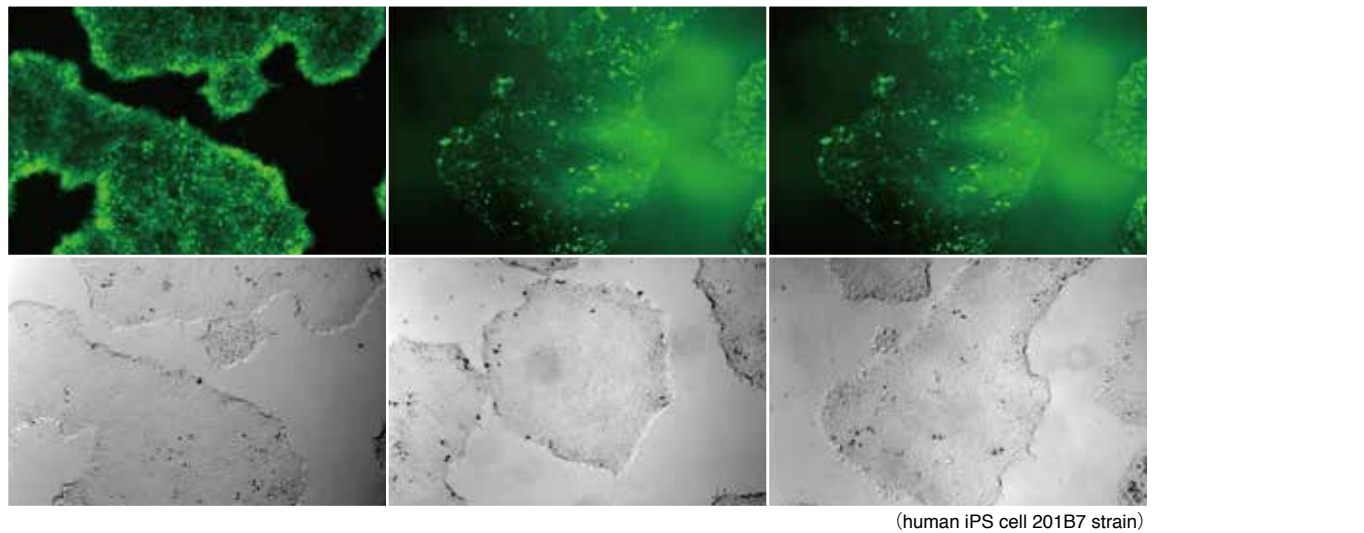
rBC2LCN lectin has been shown to exhibits significant affinity to a mucin-type O-glycan sugar chain called H-type3 (Fuc α1-2Gal β1-3GalNAc) on the podocalyxin the surface of human pluripotent stem cells (hPSCs), human ES cells and human iPS cells. rBC2LCN was reported as a marker of undifferentiated hPSCs.

- Capable of staining hPSCs just by adding to cells in culture medium
- Capable of staining in living and fixed cells
- Capable of culturing hPSCs in the state which were stained with rBC2LCN because of low cytotoxicity
- Applicable to cell stain and flow cytometry



Live cell staining of human iPS cells (Live Cell Imaging)

Stained human iPS cells (hiPSCs) (201B7 strain) with rBC2LCN, Tra-1-60 and Tra-1-81.



<Data was provided by Dr. Onuma and Dr. Ito, National Institute of Advanced Industrial Science and Technology>

Reference

Tateno, H., Onuma, Y., Ito Y, Minoshima, F., Saito, S., Shimizu, M., Aiki, Y., Asashima, M. and Hirabayashi, J.: *Stem Cell Reports*, **4**, 811 (2015).
Masuda, S., Miyagawa, S., Fukushima, S., Sougawa, N., Okimoto, K., Tada, C., Saito, A. and Sawa, Y.: *Protein Cell*, **6**, 469 (2015).
Onuma, Y., et al.: *Biochem. Biophys. Res. Commun.*, **431**, 524 (2013).
Tateno, H., et al.: *Stem Cells Transl. Med.*, **2**, 265 (2013).
Tateno, H., et al.: *Sci .Rep.*, **4**, 4069 (2014).

Note: After thawing, store at 2-10°C and use within four weeks. If you don't use within 4 weeks, you should make aliquots and store at -20°C. Avoid repeating freeze-thaw.

Product Name			Package Size / Wako Cat. No.			
	StemSure Series is a group of products whose quality has been confirmed by culturing mouse ES cells and iPS cells, and we perform quality test using mouse ES D3 strain cells or human iPS 201B7 strain cells every production.					
StemSure Series	StemSure hPSC Medium Δ	100 mL	197-17571	100 mL × 4	193-17573	
	StemSure D-MEM (High Glucose) with Phenol Red and Sodium Pyruvate			500 mL	197-16275	
	StemSure Serum Replacement (SSR)			500 mL	191-18375	
	StemSure 10mmol/l 2-Mercaptoethanol Solution (×100)			100 mL	198-15781	
	StemSure 50mmol/l Monothioglycerol Solution (×100)			100 mL	195-15791	
	StemSure 0.1w/v% Gelatin Solution			500 mL	190-15805	
	StemSure Freezing Medium			100 mL	195-16031	
	StemSure hPSC Freezing Medium, AF			100 mL	197-17831	
	StemSure LIF, Mouse, recombinant, Solution	1,000,000 units	199-16051	1,000,000 units × 10	195-16053	
rBC2LCN	Recombinant BC2LCN can be used for research of human ES and iPS cells. rBC2LCN is expected to be applicable not only to stem cell research but also to regenerative medicine since it is reportedly a useful marker for detection of undifferentiated cells.					
	BC2LCN (AiLecS1) Lectin, recombinant, Solution	1 mg	029-18061	1 mg × 5	025-18063	
	rBC2LCN-PE23	100 μL	180-03231	100 μL × 5	186-03233	
	rBC2LCN Stripping Solution			10 mL	182-03171	
	rBC2LCN-547 (AiLecS1-547)			100 μL	186-03211	
	rBC2LCN-635 (AiLecS1-635)	100 μL	185-03161	100 μL × 5	181-03163	
	rBC2LCN-FITC (AiLecS1-FITC)	100 μL	180-02991	100 μL × 5	186-02993	
	Human ES/iPS Cell Monitoring Kit			96 Tests	299-78301	
	Ready-to-Use general-purpose liquid culture media such as D-MEM, E-MEM, RPMI-1640, etc. are available just after warming to incubation temperature (around 37° C) because each is filtration sterilized. Balanced salt solutions can be used to prepare dilutions or to wash cells while maintaining osmotic pressure.					
Culture Medium	StemSure D-MEM (High Glucose) with Phenol Red and Sodium Pyruvate			500 mL	197-16275	
	D-MEM (High Glucose) with L-Glutamine and Phenol Red			500 mL	044-29765	
	D-MEM (High Glucose) with L-Glutamine, Phenol Red and Sodium Pyruvate			500 mL	043-30085	
	D-MEM (High Glucose) with L-Glutamine, Phenol Red, Sodium Pyruvate and 1,500mg/l Sodium Bicarbonate			500 mL	049-32645	
	D-MEM (High Glucose) with L-Glutamine, Phenol Red and HEPES			500 mL	048-30275	
	D-MEM (High Glucose) with L-Glutamine and HEPES			500 mL	044-32955	
	D-MEM (High Glucose) with Phenol Red			500 mL	045-30285	
	D-MEM (High Glucose) with Phenol Red and Sodium Pyruvate			500 mL	045-32245	
	D-MEM (High Glucose) without L-Glutamine and Phenol Red			500 mL	040-30095	
	D-MEM (High Glucose) with Sodium Pyruvate, without Amino Acids			500 mL	048-33575	
	D-MEM (High Glucose) with L-Glutamine and Phenol Red, Powder	for 1 L x 10	049-33561	for 10 L x 1	045-33563	
	D-MEM (High Glucose) with L-Glutamine and Sodium Pyruvate, Powder	for 1 L x 10	297-72501	for 10 L x 1	293-72503	
	D-MEM (Low Glucose) with L-Glutamine and Phenol Red			500 mL	041-29775	
	D-MEM (Low Glucose) with Sodium Pyruvate, AF			500 mL	044-33555	
	D-MEM (No Glucose) with L-Glutamine and Phenol Red			500 mL	042-32255	
	E-MEM with L-Glutamine and Phenol Red			500 mL	051-07615	
	E-MEM with Phenol Red and Non-essential Amino Acids			500 mL	056-08385	
	E-MEM with L-Glutamine, Phenol Red, Sodium Pyruvate, Non-essential Amino Acids and 1,500mg/l Sodium Bicarbonate			500 mL	055-08975	
	E-MEM with L-Glutamine and Phenol Red, Powder	for 1 L x 10	054-09001	for 10 L x 1	050-09003	
	G-MEM with L-Glutamine and Phenol Red			500 mL	078-05525	
	MEM α with L-Glutamine and Phenol Red			500 mL	135-15175	
	MEM α with L-Glutamine, Phenol Red, Sodium Pyruvate and Nucleosides			500 mL	137-17215	
	MEM α with L-Glutamine, Sodium Pyruvate and Nucleosides			500 mL	134-17225	
	MEM α with L-Glutamine and Phenol Red, Powder	for 1 L x 10	130-18621	for 10 L x 1	136-18623	
	RPMI-1640 with L-Glutamine and Phenol Red	500 mL	189-02025	1 L	187-02021	
	RPMI-1640 (No Glucose) with L-Glutamine and Phenol Red			500 mL	185-02865	
	RPMI-1640 with L-Glutamine, Phenol Red and HEPES			500 mL	189-02145	
	RPMI-1640 (4,500mg/l Glucose) with L-Glutamine, Phenol Red, HEPES and Sodium Pyruvate			500 mL	187-02705	
	RPMI-1640 with L-Glutamine			500 mL	186-02155	
	RPMI-1640 with Phenol Red			500 mL	183-02165	
	RPMI-1640 with L-Glutamine and Phenol Red, Powder	for 1 L x 10	187-03241	for 10 L x 1	183-03243	
	Ham's F-12 with L-Glutamine and Phenol Red			500 mL	087-08335	
	Ham's F-12 with L-Glutamine and Phenol Red, Powder			for 1 L x 10	084-10153	
	Ham's F-12K with L-Glutamine, Phenol Red and Sodium Pyruvate			500 mL	080-08565	
	D-MEM/Ham's F-12 with L-Glutamine and Phenol Red			500 mL	048-29785	
	D-MEM/Ham's F-12 with L-Alanyl-L-Glutamine, Phenol Red and Sodium Pyruvate			500 mL	046-32275	
	D-MEM/Ham's F-12 with L-Glutamine, Phenol Red, HEPES and Sodium Pyruvate			500 mL	042-30555	
	D-MEM/Ham's F-12 with L-Glutamine and Sodium Pyruvate			500 mL	045-30665	
	D-MEM/Ham's F-12 with Phenol Red, HEPES and Sodium Pyruvate			500 mL	042-30795	
	D-MEM/Ham's F-12 with L-Glutamine and Phenol Red, Powder	for 1 L x 10	043-33743	for 10 L x 1	041-33744	
	IMDM with L-Glutamine, Phenol Red, HEPES and Sodium Pyruvate			500 mL	098-06465	
	Leibovitz's L-15 Medium with L-Glutamine, Phenol Red and Sodium Pyruvate			500 mL	128-06075	
	200mmol/l L-Alanyl-L-Glutamine Solution (×100)			100 mL	016-21841	
	200mmol/l L-Glutamine Solution (×100)			100 mL	073-05391	
	MEM Non-essential Amino Acids Solution (×100)			100 mL	139-15651	
	D-PBS (-)			500 mL	045-29795	
	10x D-PBS (-)			500 mL	048-29805	
	D-PBS (-), Powder	for 1 L x 10	293-72601	for 10 L x 1	299-72603	
	PBS (-)			500 mL	166-23555	
	10×PBS (-)			500 mL	163-25265	
	HBSS (-) with Phenol Red			500 mL	084-08345	
	HBSS (-) without Phenol Red			500 mL	085-09355	
	10×HBSS (-) without Phenol Red			500 mL	082-09865	
	HBSS (+) with Phenol Red			500 mL	082-09365	
	HBSS (+) without Phenol Red	500 mL	084-08965	1 L	082-08961	
		We offer a variety of antibiotic solutions that can be used to prevent or eliminate contamination of media by bacteria, yeast, mold and mycoplasma.				
	Antibiotic & Antimycotic Solutions	Amphotericin B Suspension			50 mL	019-23891
		50mg/ml G-418 Sulfate Solution, Animal-derived-free	20 mL	071-06431	100 mL	077-06433
		Gentamicin Sulfate Solution (50mg/ml)			10 mL	078-06061
		Kanamycin Sulfate Solution (50mg/ml)			20 mL	117-00961
		1mg/ml Mitomycin C Solution			1 mL	133-15931
		Penicillin-Streptomycin Solution (×50)			100 mL	164-25251
		Penicillin-Streptomycin Solution (×100)			100 mL	168-23191
		Penicillin-Streptomycin-Amphotericin B Suspension (×100) (Antibiotic-Antimycotic Solution)			100 mL	161-23181
		Penicillin-Streptomycin-L-Glutamine Solution (×100)			100 mL	161-23201

Product Name			Package Size / Wako Cat. No.		
Animal-derived-free Cytokines	Fibroblast Growth Factor 4 (FGF4), Human, recombinant, Animal-derived-free	25 μ g	065-06031	500 μ g $\times$ 2	069-06034
	Fibroblast Growth Factor 8 (FGF8b), Human, recombinant, Animal-derived-free	25 μ g	067-06231	500 μ g	061-06234
	Fibroblast Growth Factor 9 (FGF9), Human, recombinant, Animal-derived-free	20 μ g	066-06201	1 mg	062-06203
	Fibroblast Growth Factor 10 (FGF10), Human, recombinant, Animal-derived-free	25 μ g	069-06051	1 mg	065-06053
	Flt3 Ligand, Human, recombinant, Animal-derived-free	10 μ g	061-05391	1 mg	067-05393
	Glial Cell Line-derived Neurotrophic Factor (GDNF), Human, recombinant, Animal-derived-free	10 μ g	070-06261	250 μ g	074-06264
	Granulocyte Colony-Stimulating Factor (G-CSF), Human, recombinant, Animal-derived-free	10 μ g	072-06101	1 mg	078-06103
	Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF), Human, recombinant, Animal-derived-free	20 μ g	074-05603	1 mg	072-05604
	Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF), Mouse, recombinant, Animal-derived-free	20 μ g	075-05633	1 mg	073-05634
	Heregulin- β -1, Human, recombinant, Animal-derived-free	50 μ g	080-09001	1 mg	086-09003
	Insulin-like Growth factor-I (IGF-I), Human, recombinant, Animal-derived-free	100 μ g	096-05741	1 mg	092-05743
	Insulin-like Growth factor- II (IGF- II), Human, recombinant, Animal-derived-free	50 μ g	093-06611	1 mg	099-06613
	Interferon- γ (IFN- γ), Human, recombinant, Animal-derived-free	100 μ g	093-06111	1 mg	099-06113
	Interferon- γ (IFN- γ), Mouse, recombinant, Animal-derived-free	100 μ g	090-06981	1 mg	096-06983
	Interleukin-1 α (IL-1 α), Human, recombinant, Animal-derived-free	10 μ g	098-06801	1 mg	094-06803
	Interleukin-1 β (IL-1 β), Human, recombinant, Animal-derived-free	10 μ g	090-06121	1 mg	096-06123
	Interleukin-2 (IL-2), Human, recombinant, Animal-derived-free	50 μ g	093-05751	1 mg	099-05753
	Interleukin-3 (IL-3), Human, recombinant, Animal-derived-free	10 μ g	090-05761	1 mg	096-05763
	Interleukin-3 (IL-3), Mouse, recombinant, Animal-derived-free	10 μ g	097-06131	1 mg	093-06133
	Interleukin-4 (IL-4), Human, recombinant, Animal-derived-free	20 μ g	095-05733	1 mg	093-05734
	Interleukin-4 (IL-4), Mouse, recombinant, Animal-derived-free	20 μ g	090-06621	1 mg	096-06623
	Interleukin-6 (IL-6), Human, recombinant, Animal-derived-free	20 μ g	098-06041	1 mg	094-06043
	Interleukin-6 (IL-6), Mouse, recombinant, Animal-derived-free	10 μ g	094-07001	1 mg	090-07003
	Interleukin-7 (IL-7), Human, recombinant, Animal-derived-free	10 μ g	094-06641	1 mg	090-06643
	Interleukin-8 (monocyte-derived) (IL-8) , Human, recombinant, Animal-derived-free	25 μ g	093-07191	1 mg	099-07193
	Interleukin-15 (IL-15), Human, recombinant, Animal-derived-free	10 μ g	095-07031	1 mg	091-07033
	Interleukin-16 (IL-16), Human, recombinant, Animal-derived-free	10 μ g	094-06141	1 mg	090-06143
	Keratinocyte Growth Factor (KGF / FGF7), Human, recombinant, Animal-derived-free	10 μ g	116-00811	500 μ g	110-00814
	LIF, Human, recombinant, Animal-derived-free	25 μ g	125-06661	1 mg	121-06663
	Macrophage Colony-Stimulating Factor (M-CSF), Human, recombinant, Animal-derived-free	10 μ g	138-16101	1 mg	134-16103
	Macrophage Colony-Stimulating Factor (M-CSF), Mouse, recombinant, Animal-derived-free	10 μ g	131-16831	1 mg	137-16833
	MCP-1 (CCL2), Human, recombinant, Animal-derived-free	20 μ g	131-17051	1 mg	137-17053
	Nerve Growth Factor- β (NGF- β), Human, recombinant, Animal-derived-free	20 μ g	140-09131	1 mg	146-09133
	Neurotrophin-3 (NT3), Human, recombinant, Animal-derived-free	10 μ g	146-09231	250 μ g	140-09234
	Noggin, Mouse, recombinant, Animal-derived-free	20 μ g	140-09491	500 μ g	144-09494
	Oncostatin M (209aa), Human, recombinant, Animal-derived-free	10 μ g	152-03411	1 mg	158-03413
	PDGF-AA, Human, recombinant, Animal-derived-free	10 μ g	165-25541	1 mg	161-25543
	PDGF-BB, Human, recombinant, Animal-derived-free	10 μ g	164-24031	1 mg	160-24033
	Placenta Growth Factor-1 (PLGF-1), Human, recombinant, Animal-derived-free	25 μ g	167-24021	1 mg	163-24023
	Stem Cell Factor (SCF), Human, recombinant, Animal-derived-free	10 μ g	197-15511	250 μ g	191-15514
	Stem Cell Factor (SCF), Mouse, recombinant, Animal-derived-free	10 μ g	196-15581	1 mg	192-15583
	Stromal Cell-Derived Factor-1 α (SDF-1 α), Human, recombinant, Animal-derived-free	10 μ g	199-17031	1 mg	195-17033
	Thrombopoietin (TPO), Human, recombinant, Animal-derived-free	10 μ g	207-17581	500 μ g	201-17584
	Thrombopoietin (TPO), Mouse, recombinant, Animal-derived-free	10 μ g	202-19611	1 mg	208-19613
	Thrombopoietin (TPO), Rat, recombinant, Animal-derived-free	10 μ g	204-17591	1 mg	200-17593
	Transforming Growth Factor- β 3 (TGF- β 3), Human, recombinant, Animal-derived-free	10 μ g	207-19281	100 μ g	201-19284
	Tumor Necrosis Factor- α (TNF- α), Human, recombinant, Animal-derived-free	50 μ g	201-18581	1 mg	207-18583
	Vascular Endothelial Growth Factor-A165 (VEGF), Human, recombinant, Animal-derived-free	10 μ g	226-01781	100 μ g	226-01786
	Vascular Endothelial Growth Factor-A165 (VEGF), Mouse, recombinant, Animal-derived-free	10 μ g	223-02031	1 mg	229-02033
	Vascular Endothelial Growth Factor-A121 (VEGF-A121), Human, recombinant, Animal-derived-free	10 μ g	222-02001	1 mg	228-02003

This serum replacement and supplements are particularly optimized to grow ES / iPS cells and Nerve cells in culture.					
Serum Replacements	StemSure Serum Replacement (SSR)	500 mL	191-18375		
	NS Supplement ($\times$ 50)	10 mL	146-09351		
	NS Supplement without Vitamin A ($\times$ 50)	10 mL	142-09691		
	NS Supplement without Insulin ($\times$ 50)	10 mL	149-09721	50 mL	145-09723
	N2 Supplement with Transferrin (Holo) ($\times$ 100)			5 mL	141-08941
	N2 Supplement with Transferrin (Apo) ($\times$ 100)			5 mL	141-09041
Low Molecular Compounds	We offer a wide range of low molecular weight compounds that have been shown by many studies to be involved in maintaining an undifferentiated state or inducing differentiation in ES and iPS cells. *MF: MF has been registered in Drug Master File in Japan. We manage raw materials, conduct the validations of the manufacturing process and analytical tests and manufacture in the system obtaining permanently stable quality products. (* : The products cannot be exported to United States.)				
	CultureSure A-83-01	2 mg	039-24111	10 mg	035-24113
	A-83-01, MF	5 mg	010-26741	25 mg	018-26742
	ALK5 Inhibitor	1 mg	012-23021	10 mg	018-23023
	(+/-)-Bay K 8644			5 mg	027-09951
	BIX01294			2 mg	023-16401
	(-)-Blebbistatin	1 mg	021-17041	5 mg	027-17043
	6-Bromindirubin-3'-oxime			1 mg	029-16241
	Butyric Acid	25 mL	029-05393	500 mL	023-05396
	CultureSure CHIR99021	1 mg	038-23101	5 mg	034-23103
	CultureSure 10mmol/l CHIR99021 DMSO Solution, Animal-derived-free			300 μ L	038-24681
	Cyclic Pifithrin- α Hydrobromide			5 mg	036-24001
	3-Deazaneplanocin A Hydrochloride (DZNep)			1 mg	049-33701
	DNA Methyltransferase Inhibitor (RG108)	10 mg	041-30101	25 mg	047-30103
	EHNA Hydrochloride			10 mg	056-08221
	GF 109203X			1 mg	079-03811
	H1152 Dihydrochloride			1 mg	088-09281
	HA-100 Hydrochloride			10 mg	086-10071
	IM-12			5 mg	091-07131
	IQ-1			5 mg	095-05951
	Kenpaullone	1 mg	110-00831	5 mg	116-00833
	Ki16425			5 mg	115-01001
	PD0325901	5 mg	162-25291	25 mg	168-25293
	PD173074			5 mg	160-26831
	PD184352			5 mg	165-26761
	PD-98059			5 mg	169-19211
	PS48			10 mg	164-26851
	SB203580	1 mg	199-16551	5 mg	195-16553
	SB203580 Hydrochloride			1 mg	198-16761

Product Name			Package Size / Wako Cat. No.		
Low Molecular Compounds	SC-1			1 mg	191-15411
	Sodium Butyrate			25 g	193-01522
	SU5402	1 mg	197-16731	5 mg	193-16733
	Thiazovivin			1 mg	202-18011
	U0126				5 mg
	Valproic Acid			5 g	227-01071
	WH-4-023				5 mg
	CultureSure Y-27632	1 mg	030-24021	5 mg	036-24023
	Y-27632, MF			5 mg	259-00613
	CultureSure 10mmol/l Y-27632 Solution, Animal-derived-free			300 μ L	039-24591
	CultureSure A419259 Trihydrochloride	1 mg	034-24801	5 mg	030-24803
	AICAR			100 mg	015-22531
	Am580				5 mg
	Ciclosporin A			50 mg	031-24931
	Ciglitazone				5 mg
	CultureSure CKI-7 Dihydrochloride				5 mg
	CultureSure 3mmol/l CKI-7 Dihydrochloride Solution, Animal-derived-free				1 mL
	DAPT			5 mg	043-33581
	Dorsomorphin	1 mg	044-33751	5 mg	040-33753
	Dorsomorphin Dihydrochloride	1 mg	041-33761	5 mg	047-33763
	IPA-3				5 mg
	CultureSure IWP-2			5 mg	034-24301
	CultureSure IWR-1- <i>endo</i>			5 mg	037-25131
	LY 294002	5 mg	129-04861	10 mg	125-04863
	PluriSin1				10 mg
	Purmorphamine				5 mg
	<i>all-trans</i> -Retinoic Acid	50 mg	186-01114	100 mg	182-01116
	CultureSure SB431542			5 mg	031-24291
	CultureSure 5mmol/L SB431542 DMSO Solution, Animal-derived-free				1mL
	SB431542, MF			5 mg	193-18031
	Shz-1				5 mg
	Spermine			250 mg	198-09811
	Trichostatin A			1 mg	203-17561
	Troglitazone			5 mg	209-19481
	TWS119			1 mg	206-17671
	XAV939	5 mg	247-00951	25 mg	243-00953

It has been shown that the extracellular matrices support normal cell functions and play an important role in cell division and differentiation. These products can be used as coating agents for cell cultures. (* : The products can not to be exported to United States.)					
Extracellular Matrices	Laminin Solution, from Mouse EHS Tumor			1 mg	120-05751
	Fibronectin Solution, from Human Plasma			1 mg	063-05591
	Fibronectin, from Bovine Plasma, New Zealand Origin	1 mg	062-05701		5 mg
	Vitronectin (20-398 aa), Human, recombinant, Solution				500 μ g
	Adhesamine				1 mg
	StemSure 0.1w/v% Gelatin Solution				500 mL
	EHS-gel Basement Membrane Matrix				5 mL
	[Nitta Gelatin Inc.]				
	Cellmatrix Type I -A (Collagen, Type I, 3mg/mL, pH 3.0)			20 mL	631-00651
	Cellmatrix Type I -C (Collagen, Type I, 3mg/mL, pH 3.0)			20 mL	631-00771
	Cellmatrix Type I -P (Collagen, Type I, 3mg/mL, pH 3.0)			20 mL	638-00661
	Cellmatrix Type III (Collagen, Type III, 3mg/mL, pH 3.0)			5 mL	631-01011
	Cellmatrix Type IV (Collagen, Type IV, 3mg/mL, pH 3.0)			5 mL	638-05921
	[Nippi,Inc.]				
	Collagen Type I bovine skin (pepsin solubilized collagen) 3mg/mL			20 mL	303-95713
	Collagen Type I bovine skin (acid solublized collagen) 3mg/mL			20 mL	303-95693
	Collagen Type I bovine tendon (pepsin solubilized collagen) 3mg/mL			20 mL	300-95723
	Collagen Type I ostrich tendon (pepsin solubilized collagen) 3mg/mL			20 mL	305-95773
	Collagen Type I porcine skin (pepsin solubilized collagen) 3mg/mL			20 mL	307-95733
	Collagen Type I porcine tendon (pepsin solubilized collagen) 3mg/mL			20 mL	304-95743
	Collagen Type I rat skin (pepsin solubilized collagen) 2mg/mL				1 mL
	Collagen Type I chicken skin (pepsin solubilized collagen) 2mg/mL				10 mL
	Collagen Type I tilapia skin (pepsin solubilized collagen) 3mg/mL			20 mL	309-95793
	Collagen Type III bovine skin (pepsin solubilized collagen) 3mg/mL	5 mL	306-95781	20 mL	300-95784
	Collagen Type IV bovine lens capsule (acid solubilized collagen) 0.5mg/mL				1 mL
	Collagen Powder Type I bovine skin (acid solublized collagen)			100 mg	382-07371
	Collagen Powder Type I bovine skin (pepsin solubilized collagen)			100 mg	383-07421
	Collagen Powder Type I porcine skin (pepsin solubilized collagen)			100 mg	380-07431
	Collagen Powder Skin Type porcine skin (pepsin solubilized collagen)			100 mg	387-07441
	[Matrixome Inc.]				
	iMatrix-511 Silk				175 μ g $\times$ 6
	iMatrix-511 solution (0.5mg/ml)			175 μ g $\times$ 2	385-07361
	[FUJIFILM Corporation]				
	cellnest, recombinant peptide based on human collagen type I 0.1% solution				20 mL
	cellnest, recombinant peptide based on human collagen type I Lyophilized				100 mg

We have launched DISPASE manufactured by Godo Shusei Co., Ltd. (Japan). It is a metallo protease that cleaves the N-terminal peptide bonds of neutral, non-polar amino acids. DISPASE rarely causes cell damage and is featured by gentle cell dispersion unlike the activity of protease such as trypsin or collagenase, leading to a practical use in a new field of ES or iPS cells for cell dispersion or passage.					
Cell Dispersion	DISPASE I (sterilized type, Enzyme activity: 10,000 – 13,000 PU/vial)	[Godo Shusei]		6 vials	386-02271
	DISPASE II (unsterilized type, Enzyme activity: 300,000 – 360,000 PU/g)	[Godo Shusei]		1 g	383-02281
	0.25w/v% Trypsin Solution with Phenol Red				100 mL
	0.05w/v% Trypsin-0.53mmol/l EDTA · 4Na Solution with Phenol Red			100 mL	202-16931
	0.5w/v% Trypsin-5.3mmol/l EDTA · 4Na Solution without Phenol Red ($\times$ 10)				100 mL
	0.5w/v% Trypsin-5.3mmol/l EDTA · 4Na Solution with Phenol Red ($\times$ 10)				100 mL
	0.25w/v% Trypsin-1mmol/l EDTA · 4Na Solution with Phenol Red			100 mL	209-16941
	Collagenase, recombinant, Animal-derived-free				240,000 units
	Collagenase	100 mg	038-22361	1 g	034-22363
	Collagenase Type I	100 mg	031-17601	500 mg	037-17603
	Collagenase Type V			100 mg	038-178