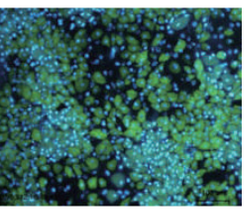
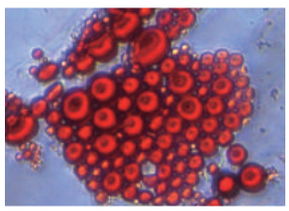
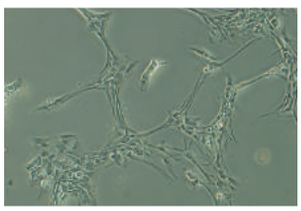
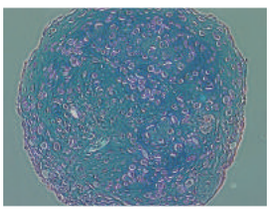
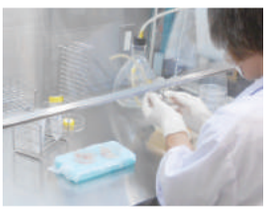
Cell Culture Kits & Cell Culture Assay Kits

Guidebook

COSMO BIO CO., LTD.

Cosmo Bio offers a wide range of primary cell culture kits for the study of obesity, diabetes, osteogenesis, osteoporosis, and more. We provide primary cell culture kits, culture media, and related assay kits.



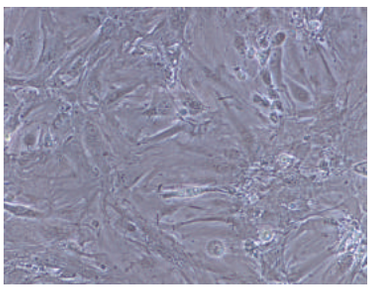





Products

Cardiomyocyte

Cardiomyocyte Culture Kit

Cardiomyocytes are one of the cell types that comprised by cardiac muscle and are characterized by involuntary beating in cell culture. As this beating is responsive to a variety of stimuli (e.g., hormones, drugs, electrical) cardiomyocytes are widely used in pharmacology and electrophysiology assays. The Cardiomyocyte Culture Kit contains cryopreserved cardiomyocytes, culture medium, and fibronectin. The included cardiomyocytes are enriched from mouse heart embryos by removal of other cell types. Cardiomyocytes cultured with this kit display characteristic beating in culture.



Mouse Cardiomyocyte

Description	Derived from	Cat. No.	Quantity	Storage
Cardiomyocyte Culture Kit	ICR Mouse heart	PMC-CMC12-COS	1 set	-
Kit Components ● Cardiomyocyte (Frozen Cells, 2 × 10^6 cells) — 1 vial (Liq N_2) ● Culture Medium (125 mL) — 1 bottle (-20℃)		● Fibronectin (12 mL) — 1 bottle (-20℃)		
Cardiomyocyte Culture Medium	-	PMC-CMCM-COS	500 mL	-20℃

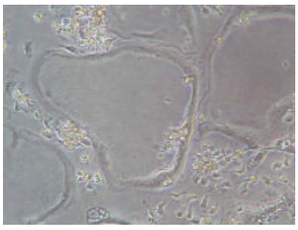
Macrophage related products (Monocyte, Osteoclast, Astrocyte)

Monocyte

Description	Derived from	Cat. No.	Quantity	Storage
Monocyte Culture Kit V-2	SD Rat	PMC-BMM01-COS	1 set	-
Kit Components ● Common Precursor (Frozen Cells, 2 × 10^6 cells) — 2 vials (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃)		
Monocyte Precusor Cell V-1	SD Rat	PMC-BMMC-COS	1 vial	-
Kit Components ● Common Precursor (Frozen Cells, 2 × 10^6 cells) 1 vial (Liq N_2)				
Monocyte Culture Medium	-	PMC-BMMG-COS	25 mL	-20℃
Monocyte Wash Medium	-	PMC-BMMW-COS	50 mL	-20℃

Osteoclast

Osteoclast cells derive from bone marrow precursors. Due to their bone resorption activity, osteoclasts are instrumental in the control of bone mass. When cultured appropriately in the presence of M-CSF and RANKL, bone marrow osteoclast precursors differentiate into osteoblasts displaying bone resorption activity. Our Osteoclast Culture Kits contain bone marrow precursors from rat or mouse, and appropriate wash and growth media to insure osteoclast differentiation. Kits including an Osteo Assay Surface Plate - a 96-well plate coated with a manufactured material that supports osteoclast differentiation and is a substrate for osteoclast resorption activity - allow for the convenient and reproducible observation of osteoclast function.


Osteoclast (Rat)

Description	Derived from	Cat. No.	Quantity	Storage
Osteoclast Culture Kit V-4	SD Rat	PMC-OSC11-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 4 vials (Liq N_2) ● Wash Medium (100 mL) — 1 bottle (-20℃)		● Culture Medium (50 mL) — 1 bottle (-20℃)		
Osteoclast Culture Kit V-4 (Osteo assay plate)	SD Rat	PMC-OSC31-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 4 vials (Liq N_2) ● Wash Medium (100 mL) — 1 bottle (-20℃)		● Culture Medium (50 mL) — 1 bottle (-20℃) ● Osteo Assay Plate — 1 plate		
Osteoclast Culture Kit V-2	SD Rat	PMC-OSC12-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 2 vials (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃)		
Osteoclast Culture Kit V-2 (Osteo assay plate)	SD Rat	PMC-OSC32-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 2 vials (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃) ● Osteo Assay Plate — 1 plate		
Osteoclast Culture Kit V-2	ICR Mouse	PMC-OSC13-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 1 vial (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃)		
Osteoclast Culture Kit V-2 (Osteo assay plate)	ICR Mouse	PMC-OSC33-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 2 vial (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃) ● Osteo Assay Plate — 1 plate		
Osteoclast Culture Kit V-1	ICR Mouse	PMC-OSC14-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 1 vial (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃)		
Osteoclast Culture Kit V-1 (Osteo assay plate)	ICR Mouse	PMC-OSC34-COS	1 set	-
Kit Components ● Osteoclast Precursor (Frozen Cells, 2 × 10^6 cells) — 1 vial (Liq N_2) ● Wash Medium (50 mL) — 1 bottle (-20℃)		● Culture Medium (25 mL) — 1 bottle (-20℃) ● Osteo Assay Plate — 1 plate		
Osteoclast Culture Kit V-1	Human monocyte	PMC-OSC15-COS	1 set	-
Kit Components ● Osteoclast precursor, Human (Frozen, 1.5 × 10^6 cells) — 1 vial (Liq N_2) ● Wash Medium (50 ml) — 1 bottle (-20℃)		● Culture Medium (30 ml) — 1 bottle (-20℃)		
Osteoclast Culture Kit V-1 (Osteo assay plate)	Human monocyte	PMC-OSC35-COS	1 set	-
Kit Components ● Osteoclast precursor, Human (Frozen, 1.5 × 10^6 cells) — 1 vial (Liq N_2) ● Wash Medium (50 ml) — 1 bottle (-20℃)		● Culture Medium (30 ml) — 1 bottle (-20℃) ● Osteo Assay Plate — 1 plate (96 well)		
Osteoclast Culture Medium (for Rat)	-	PMC-OSCMR-COS	50 mL	-20℃
Osteoclast Culture Medium (for Mouse)	-	PMC-OSCMM-COS	50 mL	-20℃
Osteoclast Culture Medium (for Human)	-	PMC-OSCMH-COS	30 mL	-20℃
Osteoclast Wash Medium	-	PMC-OSCMW-COS	100 mL	-20℃
RANKL (Human)	-	PMC-AK30-COS	10 µg	-20℃
M-CSF (Human)	-	PMC-AK39-COS	20 µg	-20℃

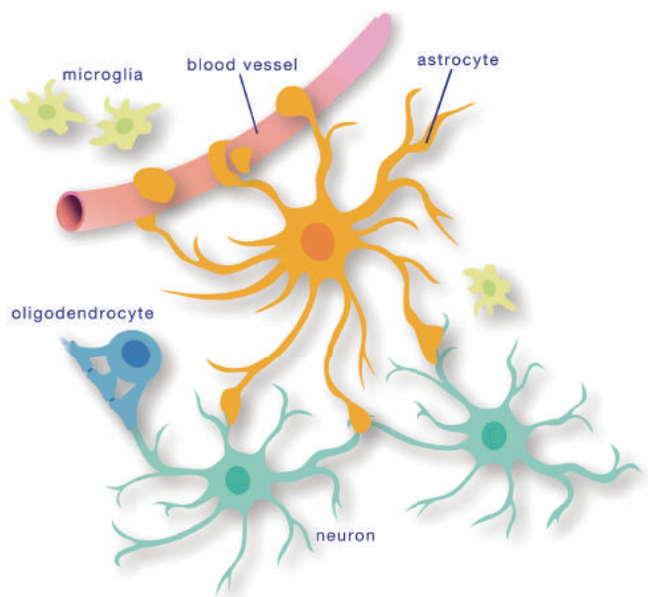
Osteoclast

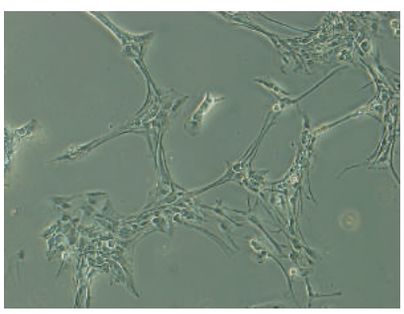
TRAP Staining Kit: Stain for the presence of tartrate resistant acid phosphatase, characteristic of mature osteoclasts.

Description	Usage	Cat. No.	Quantity	Storage
TRAP Staining Kit TRAP: Tartrate-resistant acid Phosphatase	Detection of osteoclast	PMC-AK04F-COS	1 kit (for 96-well plate x 10)	4-10℃ Do not freeze
Kit Components ● Tartrate-containing Buffer (50 ml) — 1 bottle (4℃) ● Chromogenic Substrate — 10 vials (4℃)				

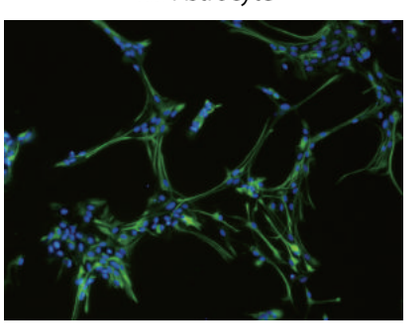
Astrocyte

Astrocytes, a type of glia cell found in the central nervous system play important roles in nervous system architecture, homeostasis and maintenance of extracellular fluid, and blood-brain barrier formation.





Rat Astrocyte



Immunostained Antrocyte
Green: Anti GFAP staining
Blue: Nuclear staining

Description	Derived from	Cat. No.	Quantity	Storage
Astrocyte Culture Kit	SD Rat	PMC-AST01-COS	1 set	-
Kit Components ● Astrocyte (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2) ● Culture medium (250 mL) — 1 bottle (-20℃)				
Astrocyte Culture Kit	C57BL/6N Mouse	PMC-AST02-COS	1 set	-
Kit Components ● Astrocyte (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2) ● Culture medium (250 mL) — 1 bottle (-20℃)				
Astrocyte Culture Medium	-	PMC-ASTM-COS	250 mL	-20℃

Bone related products (Chondrocyte, Osteoblast, Osteogenesis, Endothelial Cell)

Chondrocyte Culture Kit

This kit is useful for analyzing chondrocyte differentiation and behavior, as targets in arthro-related drug discovery, and for cartilage regeneration research.

Description	Derived from	Cat. No.	Quantity	Storage
Chondrocyte Culture Kit V-1	Rabbit (Japanese albino)	PMC-CHC04-COS	1 set	-
Kit Components	● Chondrocyte (Frozen Cells, 2 × 10^6 cells) — 1 vial (Liq N_2) ● Growth Medium (125 mL) — 1 bottle (-20℃)		● Differentiation Medium (125 mL) — 1 bottle (-20℃)	
Chondrocyte Growth Medium	-	PMC-CHCG-COS	500 mL	-20℃
Chondrocyte Differentiation Medium	-	PMC-CHCM-COS	500 mL	-20℃

Assay Kit: Easy quantitation of acidic mucopolysachharide, a key component of the extracellular matrix.

Description	Usage	Cat. No.	Quantity	Storage
Acidic Mucopolysaccaride Assay Kit	Quantitative determination of acidic mucopolysaccharide	PMC-AK03-COS	1 kit (100 tests)	4-10℃ Do not freeze
Kit Components	● Chromogenic Solution (4 mL) — 1 bottle ● Buffer (130 mL) — 1 bottle		● Enzyme Powder For Sample Preparation — 5 bottles ● Chondroitin Sulfate Standard Solution (100 µg/ml) (2 mL) — 1 bottle	

Osteoblast From Cranial Bone Culture Kit

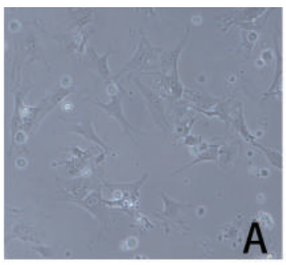
Description	Derived from	Cat. No.	Quantity	Storage
Osteoblast Culture Kit V-1	SD Rat	PMC-OBC02-COS	1 set	-
Kit Components	● Osteoblast (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2)		● Culture Medium (500 mL) — 1 bottle (-20℃)	
Osteoblast Culture kit	ICR Mouse	PMC-OBC12-COS	1 set	-
Kit Components	● Osteoblasts (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2)		● Culture Medium (500 mL) — 1 bottle (-20℃)	
Osteoblast Culture Medium		PMC-OBCM-COS	500 mL	-20℃

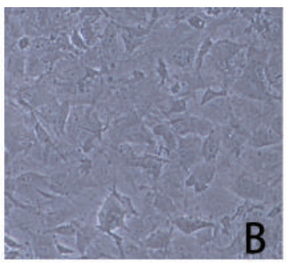
Assay Kit

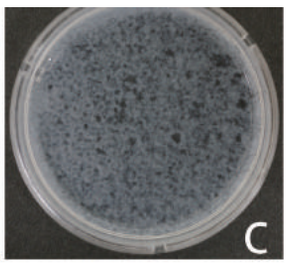
Description	Usage	Cat. No.	Quantity	Storage
Alkaline Phosphatase Staining Kit	Detection of osteoblast	PMC-AK20-COS	1 kit (for 12 well plate × 10)	4-10℃ Do not freeze
Kit Components	● Substrate-containing Buffer (50 mL) — 1 bottle		● Chromogenic Substrate — 10 vials	
Calcified Nodule Staining Kit	Detection of calcified nodule	PMC-AK21-COS	1 set (for 24 well plate × 10)	RT
Kit Components	● Substrate-containing Buffer (×100) (60 mL) — 1 bottle		● Chromogenic Substrate — 10 vials	

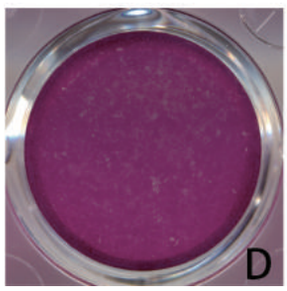
Osteogenesis Culture Kit

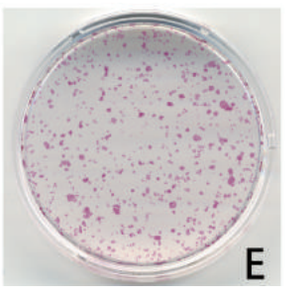
Description	Derived from	Cat. No.	Quantity	Storage
Osteogenesis Culture Kit	ICR Mouse	PMC-OGC11-COS	1 kit	-
Kit Components ● Bone marrow stromal cell (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2) ● Growth Medium (125 mL) — 1 bottle (-20℃)		● Culture Medium (250 mL) — 1 bottle (-20℃)		
Osteogenesis Growth Medium		PMC-OGCMG-COS	250 mL	-20℃
Osteogenesis Culture Medium		PMC-OGCMO-COS	250 mL	-20℃











Morphology of cultured cells

A: Day 0

B: Confluent

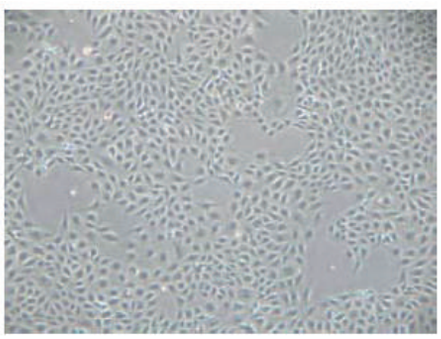
C: 3 weeks after medium is changed into "Osteogenesis Culture Medium for Osteogenesis Culture Kit" (35 mm dish)

D: 3T3-E1 cells are cultured using Osteogenesis Culture Medium for Osteogenesis Culture Kit (Mouse) (Cat No. PMC- OGCMO-COS) (35 mm dish)

E: Cells in Osteogenesis Culture Kit (Mouse) (Cat No. PMC-OGC11-COS) (24 well plate)

Endothelial Cell Culture Kit

Endothelial cells of ENC01 are isolated from porcine aorta. They are characterized by acetylated LDL uptake. The kit contains cryopreserved endothelial cells and culture medium.



Morphology of endothelial cells

Description	Derived from	Cat. No.	Quantity	Storage
Endothelial Cell Culture Kit V-1	**Porcine aorta**	PMC-ENC01-COS	1 kit	-
Kit Components ● Endothelial Cells (Frozen Cells, 1 × 10^5 cells) — 1 vial (Liq N_2) ● Culture Medium (250 mL) — 1 bottle (-20℃)		● Culture Medium (250 mL) — 1 bottle (-20℃)		
Endothelial Cells Culture Medium		PMC-ENCM -COS	500 mL	-20℃

Adipocytes (Subcutaneous fat, Epididymal fat, Visceral fat , Brown fat)

Useful for drug development of obesity/diabetes/hypertension/arteriosclerosis, function test of anti-obesity foods, lipid metabolism analyses etc.

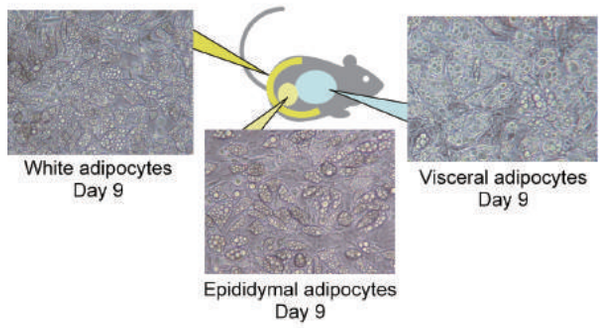
Preadipocyte Culture Kit

Preadipocyte Culture Kits include Visceral, Epidymal, and subcutaneous white preadipocytes. Useful to compare adipocyte function from different organs. All cells from each kit are derived from the same individual animal.

Description	Derived from	Cat. No.	Quantity	Storage
Preadipocyte Culture Kit H-3	SD Rat	PMC-VESH3-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 1.5 × 10^6 cells) — 1 vial (Liq N_2) ● Epididymal Preadipocytes (Frozen Cells, 1.5 × 10^6 cells) — 1 vial (Liq N_2) ● Subcutaneous White Preadipocytes (Frozen Cells, 1.5 × 10^6 cells) — 1 vial (Liq N_2) ● Adipocyte Culture Medium (400 mL) — 1 bottle (-20℃)				
Preadipocyte Culture Kit Q-3	SD Rat	PMC-VESQ3-COS	1 set	
Kit Components ● Visceral Preadipocytes (Frozen Cells, 0.75 × 10^6 cells) — 1 vial (Liq N_2) ● Epididymal Preadipocytes (Frozen Cells, 0.75 × 10^6 cells) — 1 vial (Liq N_2) ● Subcutaneous White Preadipocytes (Frozen Cells, 0.75 × 10^6 cells) — 1 vial ● Adipocyte Culture Medium (250 mL) — 1 bottle (-20℃)				

White Adipocyte Culture Kit

White adipocytes, a type of subcutaneous adipocyte, play an important role in energy storage. White Adipocyte Culture Kit, V-1 (Rat) contains preadipocytes isolated from subcutaneous adipose tissues and culture medium that induces differentiation of precursor cells into mature adipocytes. The kit provides a convenient system for studying the mechanism of adipogenesis as well as for analyzing effects of drugs on metabolic syndrome such as obesity, diabetes and hypertension.



Description	Derived from	Cat. No.	Quantity	Storage
Subcutaneous Adipocyte Culture Kit V-1	SD Rat	PMC-SAC01-COS	1 set	-
Kit Components ● Subcutaneous White Preadipocytes (Frozen Cells, 3 × 10^6 cells) — 1 vial (Liq N_2) ● White Adipocyte Culture Medium (250 mL) — 1 bottle (-20℃)				
White Adipocyte Culture Medium	-	PMC-SACMR-COS	250 mL	-20℃

Epididymal Adipocyte Culture Kit

Epididymal Adipocyte Culture Kit contains preadipocytes isolated from epididymal adipose tissues and culture medium that induces differentiation of precursor cells into mature adipocytes. The kit provides a convenient system for studying the mechanism of adipogenesis as well as for examining effectiveness of drugs on metabolic syndrome such as obesity, diabetes and hypertension

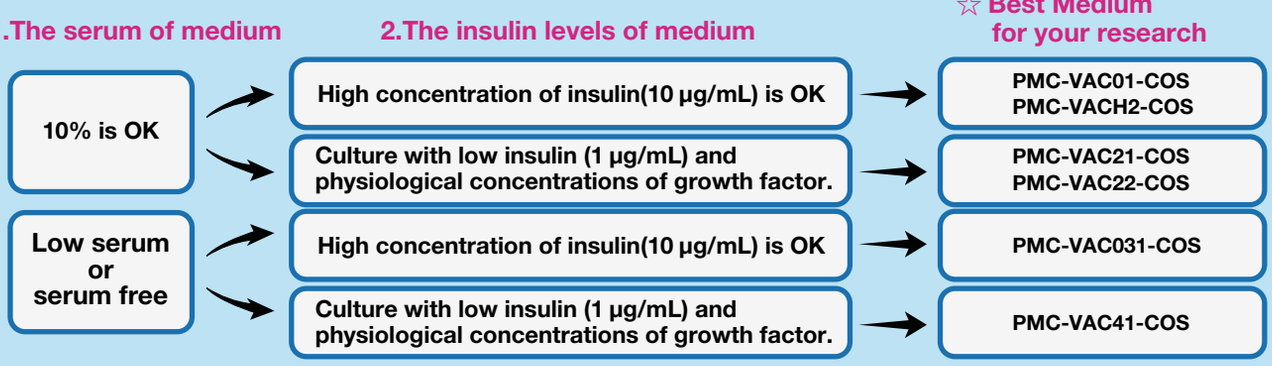
Description	Derived from	Cat. No.	Quantity	Storage
Epididymal Adipocyte Culture Kit V-1	SD Rat	PMC-EAC01-COS	1 set	-
Kit Components ● Epididymal Preadipocytes (Frozen Cells, 3 × 10^6 cells) — 1 vial (Liq N_2) ● Epididymal Adipocyte Culture Medium (250 mL) — 1 bottle (-20℃)				
Epididymal Adipocyte Culture Kit H-1	ICR Mouse	PMC-EAC11-COS	1 set	-
Kit Components ● Epididymal Preadipocytes (Frozen Cells, 1.5 × 10^6 cells) — 1 vial (Liq N_2) ● Epididymal Adipocyte Culture Medium (125 mL) — 1 bottle (-20℃)				
Epididymal Adipocyte Culture Medium	-	PMC-EACMR-COS	250 mL	-20℃

Visceral Adipocyte Culture Kit

Visceral Adipocyte Culture Medium is suitable for differentiation induction of preadipocytes into adipocytes. Visceral Adipocyte Culture Medium ver. 2 which includes 1 ng/mL of insulin and physiological concentration of growth factors is more similar to *in vivo* condition than ver. 1 which includes 10,000 ng/mL of insulin and no growth factors. Neither media contain exogenous differentiation agents.

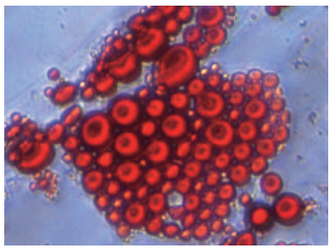
Description	Derived from	Cat. No.	Quantity	Storage
Visceral Adipocyte Culture Kit V-1	SD Rat	PMC-VAC01-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 3 × 10^6 cells) — 1 vial (Liq N_2) ● Visceral Adipocyte Culture Medium ver. 1 (250 mL) — 1 bottle (-20℃)				
Visceral Adipocyte Culture Kit H-2	SD Rat	PMC-VACH2-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 1.5 × 10^6 cells) — 2 vials (Liq N_2) ● Visceral Adipocyte Culture Medium ver. 1 (250 mL) — 1 bottle (-20℃)				
Visceral Adipocyte Culture Kit V-1 ver. 2	SD Rat	PMC-VAC21-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 3 × 10^6 cells) — 1 vial (Liq N_2) ● Visceral Adipocyte Culture Medium ver. 2 (250 mL) — 1 bottle (-20℃)				
Visceral Adipocyte Culture Kit V-1 ver. 2	SD Rat	PMC-VAC22-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 1.5 × 10^6 cells) — 2 vials (Liq N_2) ● Visceral Adipocyte Culture Medium ver. 2 (250 mL) — 1 bottle (-20℃)				
Visceral Adipocyte Culture Kit PM01	SD Rat	PMC-VAC31-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 3 × 10^6 cells) — 1 vial (Liq N_2) ● Cosmedium VAC SF-V1 (250 mL) — 1 bottle (-20℃)				
Visceral Adipocyte Culture Kit PM02	SD Rat	PMC-VAC41-COS	1 set	-
Kit Components ● Visceral Preadipocytes (Frozen Cells, 3 × 10^6 cells) — 1 vial (Liq N_2) ● Cosmedium VAC SF-V2 (250 mL) — 1 bottle (-20℃)				
Visceral Adipocyte Culture Medium ver. 1		PMC-VACMR-COS	250 mL	-20℃
Visceral Adipocyte Culture Medium ver. 2		PMC-VACM2-COS	250 mL	-20℃
Cosmedium VAC SF-V1 (high insulin concentration, low serum)		CSR-COS-PM01	250 mL	-20℃
Cosmedium VAC SF-V2 (low insulin concentration, no serum)		CSR-COS-PM02	250 mL	-20℃

How to select a Visceral Adipocyte Culture Kit

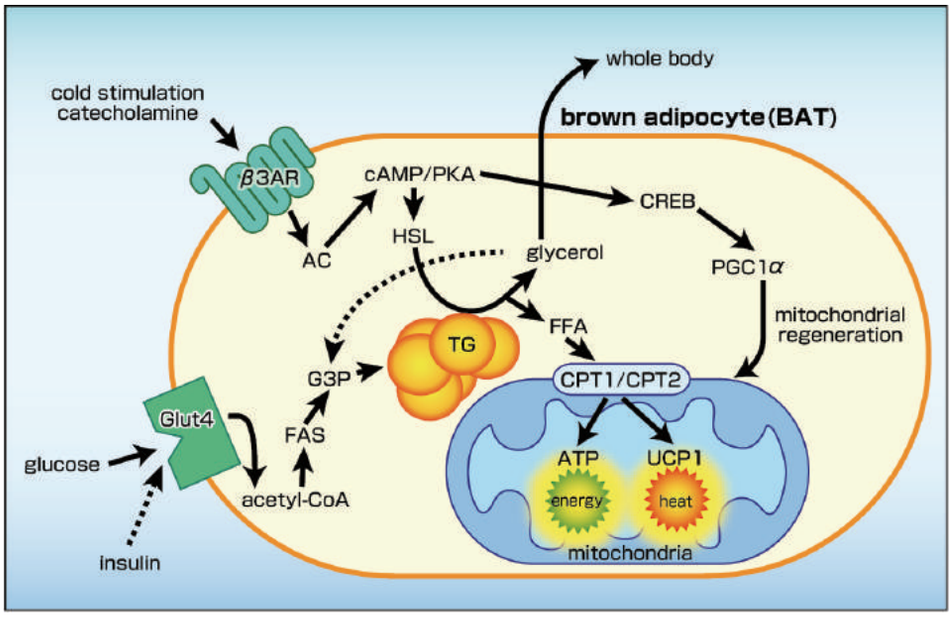


Brown Adipocyte Culture Kit

The medium included in Cat. No. PMC-BAT10-COS contains a differentiation agent, while the medium included in Cat. No. PMC-BAT11-COS does not contain any differentiation agents. Brown Preadipocytes in both Cat. No. PMC-BAT10-COS and Cat. No. PMC-BAT11-COS will differentiate, and constitutive expression of Uncoupling protein-1 (UCP-1) can be observed.

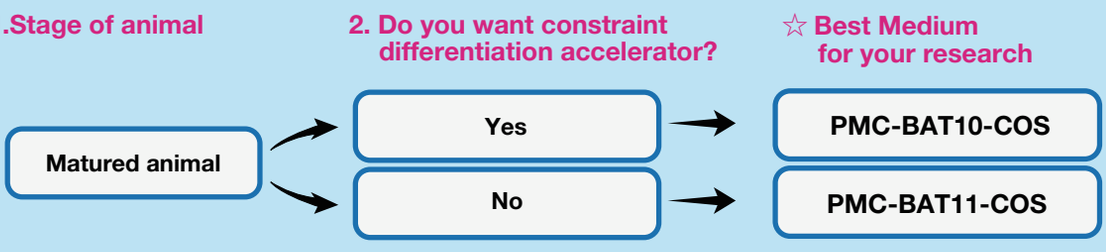


Human Subcutaneous Adipocyte stained with Lipid Assay Kit



Description	Derived from	Cat. No.	Quantity	Storage
Brown Adipocyte Culture Kit D-i	SD Rat	PMC-BAT10-COS	1 set	-
Kit Components ● Brown Preadipocytes (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2) ● Brown Adipocyte Growth Medium (125 mL) — 1 bottle (-20℃)		● Brown Adipocyte Differentiation Medium (100 mL) — 1 bottle (-20℃) ● Brown Adipocyte Maintenance Medium (125 mL) — 1 bottle (-20℃)		
Brown Adipocyte Culture Kit N-i	SD Rat	PMC-BAT11-COS	1 set	-
Kit Components ● Brown Preadipocytes (Frozen Cells, 1 × 10^6 cells) — 1 vial (Liq N_2)		● Brown Adipocyte Culture Medium (Cat. No. PMC-BATFM-COS) (250 mL) — 1 bottle (-20℃)		
Brown Adipocyte Differentiation Medium		PMC-BATDM-COS	500 mL	-20℃
Brown Adipocyte Growth Medium		PMC-BATGM-COS	500 mL	-20℃
Brown Adipocyte Maintenance Medium		PMC-BATMM-COS	500 mL	-20℃
Brown Adipocyte Culture Medium		PMC-BATFM-COS	250 mL	-20℃

How to select Brown Adipocyte Culture Kit



Related Products

Visceral preadipocytes collected from a Sprague Dawley rats (male) were differentiated into mature adipocytes and subjected to staining of lipid droplets (Figure 1) by Adipocyte Fluorescent Staining Kit (Cat. No. PMC-AK19F-COS) and nuclei (Figure 2).

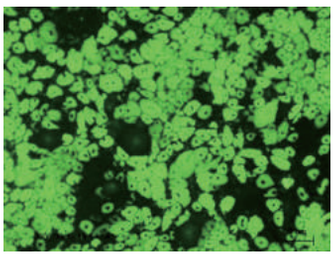


Figure 1: BODIPY® staining of lipid droplets

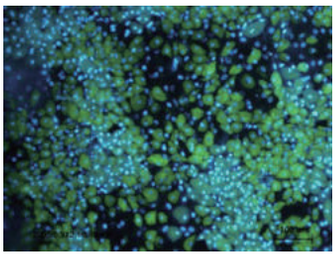


Figure 2: H33258 staining of nuclei

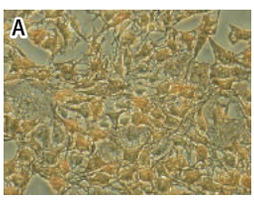
Description	Usage	Cat. No.	Quantity	Storage
GPDH Assay Kit GPDH: glycerol 3-phosphate dehydrogenase	Detection of adipose differentiation	PMC-AK01-COS	1 kit (100 tests)	-20℃
Kit Components ● Substrate — 10 bottles ● Enzyme Extraction Reagent — 1 bag				
Lipid Assay Kit	Detection of adipose differentiation	PMC-AK09F-COS	1 set (24 well plate × 30)	RT
Kit Components ● Oil red O solution (150 mL) — 2 bottles ● Solvent for Oil red O extraction (200 mL) — 2 bottle				
Adipocyte Fluorescent Staining Kit	Detection of adipose differentiation	PMC-AK19F-COS	1 set (96 well plate × 10)	4-10℃ Do not freeze
Kit Components ● Tablet for washing — 5 tablets ● BODIPY® (50 mL) — 1 bottle ● H33258 (50 mL) — 1 bottle ● Mounting agent (50 mL) — 1 bottle				

Tumor Cell Line

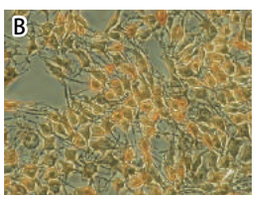
GIST-T1 Culture Kit

Gastrointestinal stromal tumors (GISTs) are one of the submucosal tumors which occur in the stomach, the small intestine and the esophagus, unlike most gastrointestinal tumors. GISTs are considered to arise from the interstitial cells of Cajal and pacemaker cells of the gut. GIST-T1 is a cell line derived from the stomach wall of a Japanese woman. It was established by Takahiro Taguchi; associate professor at the Graduate School of Integrated Arts and Sciences, Kochi-University, Kochi, Japan.

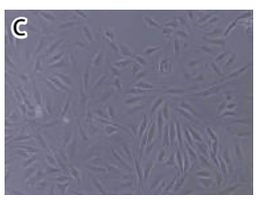
Immunohistochemical and phase-contrast microscopic observation



Anti-CD34



Anti-c-kit



phase-contrast microscopic observation

References

1. Takahiro Taguchi, Hiroshi Sonobe, and Kazunari Yuri. *et al.* Conventional and Molecular Cytogenetic Characterization of a New Human Cell Line, GIST-T1, Established from Gastrointestinal Stromal Tumor. *Lab Invest*. 2002 May; **82**(5): 663-5.

Description	Derived from	Cat. No.	Quantity	Storage
GIST-T1 Culture Kit	Homo sapiens, human	PMC-GIST01-COS	1 set	-
Kit Components ● GIST-T1, cryopreserved 1.0 x10^6 cells — 1 vial (Liq N_2) ● Culture Medium — 250 mL (-20℃)				
GIST-T1 Culture Medium		PMC-GISTM-COS	500 mL	-20℃

Pancreas - Templates for Gene expression analyses such as real-time PCR

Assay Kit: Pancreatic Beta-cell Staining (fluorescent antibody method)

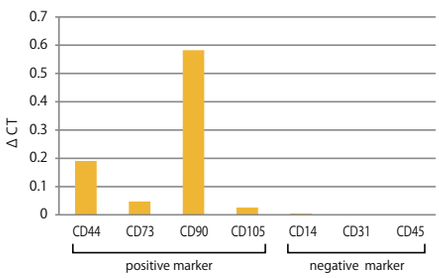
Description	Usage	Cat. No.	Quantity	Storage
Pancreatic Beta-cell Staining Kit	Staining of Pancreatic Beta-cell	PMC-AK11F-COS	1 set	4-10℃ Do not freeze
Kit Components ● Washing Buffer (100 mL) — 1 bottle ● Blocking Buffer (2 mL) — 1 bottle ● Anti-insulin antibody (20 µl) — 1 vial ● Fluorescein Secondary Antibodies (20 µl) — 1 vial				

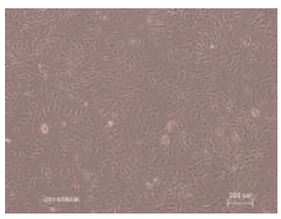
Mesenchymal Stem Cells Culture Kit - Derived from fat/bone marrow -

Mesenchymal Stem Cells (MSC)

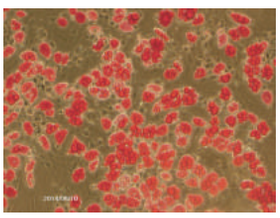
Mesenchymal Stem Cells is one of the somatic stem cell and it can be isolated from fat tissue or bone marrow etc. In addition to superior self-increase ability, it has multi differentiation ability to bone, fat, cartilage and liver, and tissue revitalization promotion effect.

＊1：Expression of CD marker by AMSC
real time PCR (Normalized by 28s rRNA)

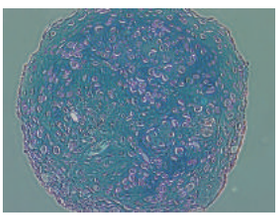




un-differentiation state of Adipose Tissue-derived Mesenchymal Stem Cell (AMSC)
(5 days culture by growth medium)



Stained by lipid assay kit of Adipose Tissue-derived Mesenchymal Stem Cell (AMSC)



Stained by alcian blue of Bone Marrow-derived Mesenchymal Stem Cell (BMSC)

Description	Derived from	Cat. No.	Quantity	Storage
Adipose Tissue-derived Mesenchymal Stem Cell (AMSC) Culture Kit	SD Rat	PMC-MSA01-COS	1 set	-
Kit Components ● Mesenchymal Stem Cells, cryopreserved 1.0x10^6 cells — 1 vial (Liq N_2) ● Culture Medium 200 mL — 1 bottle (-20℃)		● Supplement 50 µL — 2 vials (-20℃)		
Bone Marrow-derived Mesenchymal Stem Cell (BMSC) Culture Kit	SD Rat	PMC-MSB01-COS	1 set	-
Kit Components ● Mesenchymal Stem Cells, cryopreserved 0.5x10^6 cells — 1 vial (Liq N_2) ● Culture Medium 200 mL — 1 bottle (-20℃)		● Supplement 250 µL — 2 vials (-20℃)		

Related Products

Description	Cat. No.	Quantity	Storage
Growth Medium			
Adipose Tissue-derived Mesenchymal Stem Cell (AMSC) Growth Medium, Rat	PMC-MSA-GM-COS	200 mL	-20℃
Kit Components ● Growth medium 200 mL — 1 bottle	● Supplement 50 µL — 2 vials		
Bone Marrow-derived Mesenchymal Stem Cell (BMSC) Growth Medium, Rat	PMC-MSB-GM-COS	200 mL	-20℃
Kit Components ● Growth medium 200 mL — 1 bottle	● Supplement 250 µL — 2 vials		
Adipogenic Differentiation Medium			
Mesenchymal Stem Cell (MSC) Adipogenic Differentiation Medium Set, Rat	PMC-MSC-ADM-COS	1 set	-20℃
Kit Components ● Growth medium 125 mL — 1 bottle ● Differentiation Medium 100 mL — 1 bottle	● Maintenance Medium 125 mL — 1 bottle		
Growth Medium Mesenchymal Stem Cell (MSC) Adipogenic Growth Medium Set	PMC-MSC-ADGM-COS	500 mL	-20℃
Differentiation Medium Mesenchymal Stem Cell (MSC) Adipogenic Differentiation Medium Set	PMC-MSC-ADDM-COS	500 mL	-20℃
Maintenance Medium Mesenchymal Stem Cell (MSC) Adipogenic Maintenance Medium Set	PMC-MSC-ADMM-COS	500 mL	-20℃
Chondrogenic Differentiation Medium			
Adipose Tissue-derived Mesenchymal Stem Cell (AMSC) Chondrogenic Differentiation Medium, Rat	PMC-MSC-CHA-COS	50 mL	-20℃
Kit Components ● Chondrogenic Differentiation Medium 50 mL — 1 bottle	● Supplement 500 µL — 2 vials		
Bone Marrow-derived Mesenchymal Stem Cell (BMSC) Growth Medium, Rat	PMC-MSC-CHB-COS	50 mL	-20℃
Kit Components ● Chondrogenic Differentiation Medium 50 mL — 1 bottle	● Supplement 500 µL — 1 vial		
Others			
Collagen coating solution	PMC-SCO-COS	100 mL	4℃

Zymography

Gelatin Zymography

Zymography Kits provide an easy method (electrophoresis) to detect ProMMP-2, MMP-2, and ProMMP-9 in blood, body fluids, secretions, cell lysates, cell culture medium and other biological samples.

Description & Usage	Cat. No.	Quantity	Storage
Gelatin Zymography Kit (ATTO)	PMC-AK45-COS	1kit (5 tests)	4℃

Zymography Kit provides an easy system of the electrophoresis for zymography. This product is used for detecting ProMMP-2, MMP-2 and ProMMP-9 in blood, body fluid, secretion, cell lysate, cell culture medium, and other samples.

Kit Components
- Precast Gel for 12 samples — 5 pieces
- Electrophoresis Buffer (×10) — 100 mL × 2
- Washing Buffer (×10) — 100 mL
- Reaction Buffer (×10) — 25 mL
- Sample Preparation Buffer — 5 mL
- Staining Solution — 100 mL
- MMP Markers (ProMMP-2, MMP-2, ProMMP-9) — 0.2 mL
- The size of the glass plate gel is 100 (W) × 100 (H) and the thickness is 1 mm, for ATTO Electrophoresis System.

Gelatin Zymography Kit (COSMO BIO)	PMC-AK47-COS	1kit (5 tests)	4℃

Zymography Kit provides an easy system of the electrophoresis for zymography. This product is used for detecting ProMMP-2, MMP-2 and ProMMP-9 in blood, body fluid, secretion, cell lysate, cell culture medium, and other samples.

Kit Components
- Precast Gel for 12 samples — 5 pieces
- Electrophoresis Buffer (×10) — 100 mL × 2
- Washing Buffer (×10) — 100 mL
- Reaction Buffer (×10) — 25 mL
- Sample Preparation Buffer — 5 mL
- Staining Solution — 100 mL
- MMP Markers (ProMMP-2, MMP-2, ProMMP-9) — 0.2 mL
- The size of the glass plate gel is 100 (W) × 100 (H) and the thickness is 1 mm, for COSMOBIO Electrophoresis System.

MMP Marker	PMC-AK38-COS	200 µL	4℃

Matrix metalloproteinases (MMPs) belong to the family of metalloproteinases, which consists of at least 20 members, and known to be involved in the metabolism of extracellular matrix proteins. MMPs are widely detected by zymography.

Kit Components
- MMP Markers (ProMMP-2, MMP-2, ProMMP-9)

Precast Gelatin Zymogram Gel (ATTO)	PMC-AK46-COS PMC-AK49-COS	5 plates 10 plates	4℃

The Precast Gel for Gelatin Zymography Kit (ATTO) (Cat. No. PMC-AK45-COS).

Derived from
- Precast gel for 12 samples — 5 or 10 pieces

The size of the glass plate gel is 120 (W) × 100 (H) and the thickness is 1 mm, for ATTO Electrophoresis System.

Precast Gelatin Zymogram Gel (COSMO BIO)	PMC-AK48-COS PMC-AK50-COS	5 plates 10 plates	4℃

The Precast Gel for Gelatin Zymography Kit (COSMO BIO) (Cat. No. PMC-AK47-COS).

Derived from
- Precast gel for 12 samples — 5 or 10 pieces

The size of the glass plate gel is 100 (W) × 100 (H) and the thickness is 1 mm , for COSMOBIO Electrophoresis System.

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