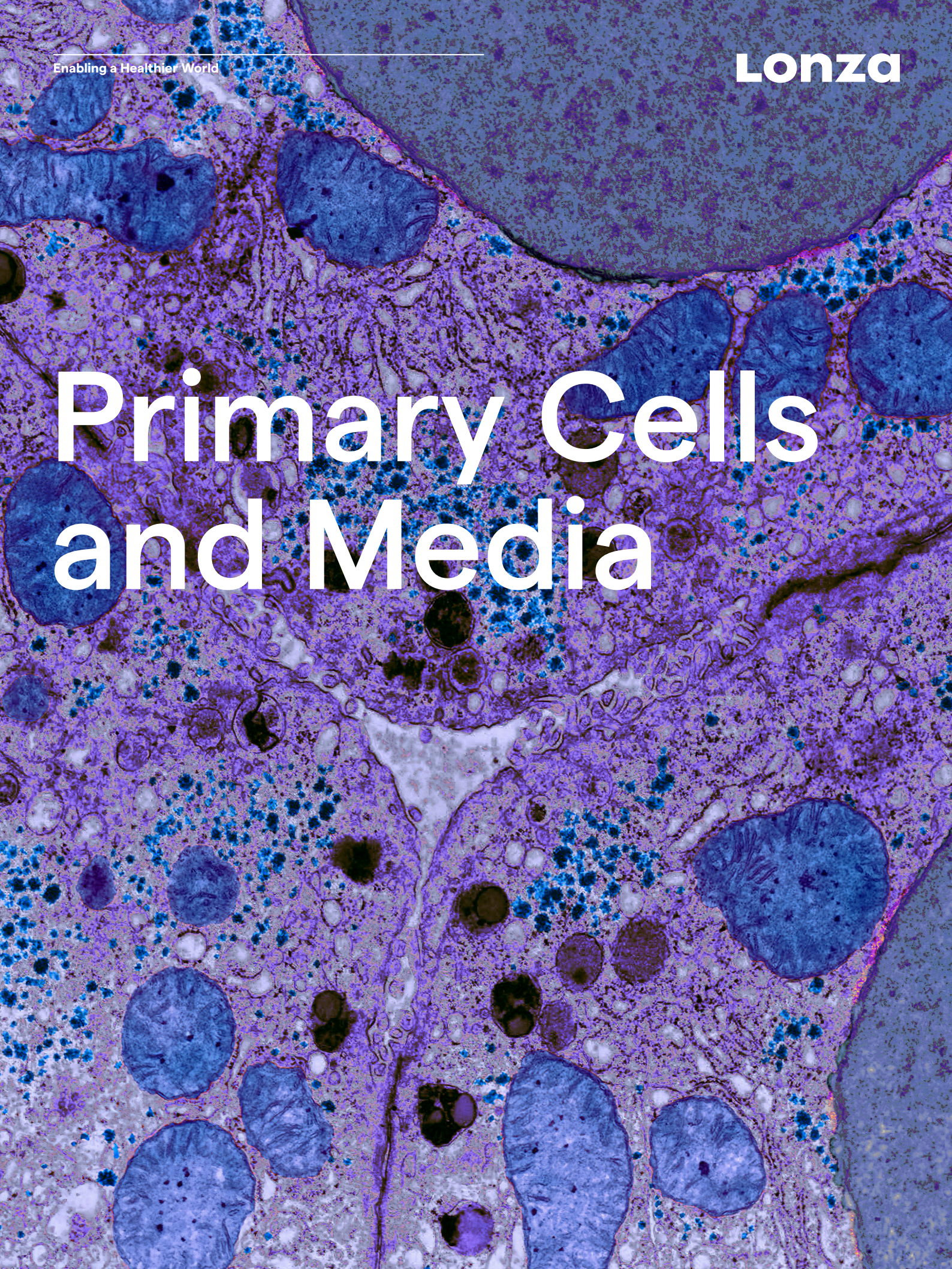


Primary Cells and Media



Contents

Cryopreserved Human Primary Cells

Adipose Cells – Normal and Diseased	3
Airway Cells – Normal and Diseased	3
Cardiac Cells – Normal and Diseased	3
Dermal Cells – Normal and Diseased	4
Diabetic (Type 1 and 2)	4
Endothelial Cells – Normal	4
Epithelial Cells – Normal and Diseased	5
Fibroblasts Cells – Normal and Diseased	5
Pancreatic Islets	6
Progenitor Cells	6
Prostate Cells – Normal	6
Renal Cells – Normal and Diseased	6
Skeletal and Skeletal Muscle Cells – Normal and Diseased	6
Smooth Muscle Cells – Normal and Diseased	6
Stem Cells – Normal	6

Cryopreserved Animal Primary Cells

Cardiac Cells	7
Neural Cells	7
Other Cell Types	7

Cryopreserved Hepatocytes

Human Hepatocytes and Non-parenchymal Cells – Plateable	8
Human Hepatocytes – Plateable	8
Human Hepatocytes – Suspension	8
Animal Hepatocytes – Plateable	8
Animal Hepatocytes – Suspension	9

Fresh Human and Animal Primary Cells

These are available upon request. Contact our Scientific Support Team for additional details.



Hematopoietic and Immune Cells

B Cells	9
CD14 ⁺ Monocytes	9
CD34 ⁺ Stem/Progenitor Cells	9
Dendritic Cells	10
Mononuclear Cells	10
NK Cells	10
Osteoclast Precursors	10
T Cells	10
Whole Tissue	11

Lonza offers a comprehensive collection of primary cells and media products supporting many research areas. Our brand is well-recognized for its outstanding Scientific Support Team and its dedication to consistent, high-performing products for more than 30 years.

Lonza's Cryopreserved Human Primary Cells Are:

- Easy-to-use – Removes time-dependencies with tissue procurement and isolations. Ready-to-use cells.
- Optimized growth media and protocols to optimally support consistent growth of primary cells while maintaining the tissue-specific characteristics
- Ideal for Scale Up – Cells are produced as large batches. Same batch can be stored, archived and utilized as needed for long-term studies
- Authenticated – Thorough quality control testing completed to assure cell identity
 - HLA and other marker characterization enables broad screening for cross reactivity testing
- Guaranteed to Perform – When used with recommended media, reagents and protocols
- Adherent to Procurement Standards – All tissue utilized for our human cell products is ethically obtained with documented, legal permission for research use.

Upon request, additional donor information including medical history may be provided both for both normal cells and cells from diseased individuals.

Contact Scientific Support for further details.

These products are for research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vivo* procedures.

Product Warranty – Cultures have a finite lifespan *in vitro*. Lonza guarantees the performance of its cells up to two years from purchase only if appropriate Clonetics® or Poietics® Media and Reagents are used exclusively, and the recommended storage and use protocols are followed. Cell and media performance is not guaranteed if any modifications are made to the complete cell system.

Cryopreserved Human Primary Cells

Cell Abbreviation	Description	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
Adipose (Fat) Cells – Normal and Diseased						
ADSC	Adipose-derived stem cells	PT-5006	ADSC™ Bulletkit®	PT-4505	PT-3273	PT-4503
Pr-Ad-S	Preadipocytes - subcutaneous	PT-5001, PT-5020	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
Pr-Ad-V	Preadipocytes - visceral	PT-5005	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
Airway Cells – Normal and Diseased						
SAEC	Small airway epithelial cells	CC-2547	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
SAEC-ALI	Small airway epithelial cells guaranteed for ALI differentiation	CC-2547S	S-ALI™ Bulletkit®	CC-4539		
NHBE with RA	Bronchial/Tracheal epithelial cells with retinoic acid	CC-2540	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
NHBE without RA	Bronchial/Tracheal epithelial cells without retinoic acid	CC-2541	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
NHBE-ALI	Bronchial/tracheal epithelial cells guaranteed for ALI differentiation	CC-2540S	B-ALI™ Bulletkit®	193514	N/A	N/A
NHLF	Lung fibroblasts	CC-2512	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
HMVEC-L	Lung microvascular endothelial cells	CC-2527	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HPAEC	Pulmonary artery endothelial cells	CC-2530	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
BSMC	Bronchial smooth muscle cells	CC-2576	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
PASMC	Pulmonary artery smooth muscle cells	CC-2581	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
DHBE-As	(Asthma) Bronchial epithelial cells	194911	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
DHBE-As-ALI	(Asthma) Bronchial epithelial cells guaranteed for ALI differentiation	194911S	B-ALI™ Bulletkit®	193514		
DBSMC-As	(Asthma) Bronchial smooth muscle cells	194850	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
D-SAEC-As	(Asthma) Small airway epithelial cells	CC-2932	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
DHBE-COPD	(COPD) Bronchial epithelial cells	195275	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
DHBE-COPD-ALI	(COPD) Bronchial epithelial cells guaranteed for ALI differentiation	195275S	B-ALI™ Bulletkit®	193514	N/A	N/A
DHLF-COPD	(COPD) Lung fibroblasts	195277	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
D-SAEC-COPD	(COPD) Small airway epithelial cells	CC-2934	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
DHBE-CF	(Cystic Fibrosis) Bronchial/Tracheal epithelial cells	196979	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
DHLF-CF	(Cystic Fibrosis) Lung fibroblasts	194843	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
D-SAEC-CF	(Cystic Fibrosis) Small airway epithelial cells	CC-2933	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
D-HPAEC-Diab T1	(Diabetic Type 1) Pulmonary artery endothelial cells	CC-2923	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
DHLF-IPL	(Idiopathic Lung Fibrosis) Lung fibroblasts	CC-7231	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
Cardiac Cells – Normal and Diseased						
HAEC	Aortic endothelial cells	CC-2535	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
AoSMC	Aortic smooth muscle cells	CC-2571	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
HCAEC	Coronary artery endothelial cells	CC-2585	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
CASMC	Coronary artery smooth muscle cells	CC-2583	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
HMVEC-C	Cardiac microvascular endothelial cells	CC-7030	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
AoAF	Aortic adventitial fibroblasts	CC-7014	SCGM™ Bulletkit®	CC-3205	CC-3204	CC-4181
NHCF-A	Atrial cardiac fibroblasts	CC-2903	FGM® 3 Bulletkit®	CC-4526	CC-3131	CC-4525
NHCF-V	Ventricle cardiac fibroblasts	CC-2904	FGM® 3 Bulletkit®	CC-4526	CC-3131	CC-4525
HPAEC	Pulmonary artery endothelial cells	CC-2530	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176

Cell Abbreviation	Description	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
PASMC	Pulmonary artery smooth muscle cells	CC-2581	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
D-HPAEC-Diab T1	(Diabetic Type 1) Pulmonary artery endothelial cells	CC-2923	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-3156
D-CASMC-Diab T1	(Diabetic Type 1) Coronary artery smooth muscle cells	CC-2917	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-3181
D-HAEC-Diab T2	(Diabetic Type 2) Aortic endothelial cells	CC-2920	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-3156
D-HCAEC-Diab T2	(Diabetic Type 2) Coronary artery endothelial cells	CC-2922	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-3156
Dermal Cells – Normal and Diseased						
HMVEC-dAd	Adult dermal microvascular endothelial cells (blood and lymphatic mix)	CC-2543	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HMVEC-dNeo	Neonatal dermal microvascular endothelial cells (blood and lymphatic mix)	CC-2505	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HMVEC-dNeo Pooled	Neonatal dermal microvascular endothelial cells (blood and lymphatic mix)	CC-2516	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
NHDF-Ad	Adult dermal fibroblasts	CC-2511	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
NHDF-Neo	Neonatal dermal fibroblasts	CC-2509	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
NHEK-Ad	Epidermal keratinocytes, Adult	192627	KGM® Gold Bulletkit®	192060	192151	192152
NHEK-Neo	Epidermal keratinocytes, Neonatal	192907	KGM® Gold Bulletkit®	192060	192151	192152
NHEK-Neo Pooled	Epidermal keratinocytes, Neonatal pooled	192906	KGM® Gold Bulletkit®	192060	192151	192152
NHEM-Neo	Neonatal epidermal melanocytes	CC-2504	MGM® 4 Bulletkit®	CC-3249	CC-3250	CC-4435
NHEM-Ad	Adult epidermal melanocytes	CC-2586	MGM® 4 Bulletkit® + ET3 Supplement	CC-3249	CC-3250	CC-4435, CC-4510
Diabetic (Type 1 and 2)						
D-ADSC-Diab T1	(Diabetic Type 1) Adipose-derived stem cells	PT-5007	ADSC™ Bulletkit®	PT-4505	PT-3273	PT-4503
D-HPAEC-Diab T1	(Diabetic Type 1) Pulmonary artery endothelial cells	CC-2923	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
D-PrAd-S-Diab T1	(Diabetic Type 1) Subcutaneous preadipocyte cells	PT-5021	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
D-PrAd-V-Diab T1	(Diabetic Type 1) Visceral preadipocyte cells	PT-5023	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
D-CASMC-Diab T1	(Diabetic Type 1) Coronary artery smooth muscle cells	CC-2917	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
D-ADSC-Diab T2	(Diabetic Type 2) Adipose-derived stem cells	PT-5008	ADSC™ Bulletkit®	PT-4505	PT-3273	PT-4503
D-HAEC-Diab T2	(Diabetic Type 2) Aortic endothelial cells	CC-2920	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
D-HCAEC-Diab T2	(Diabetic Type 2) Coronary artery endothelial cells	CC-2922	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
D-HSMM-Diab T2	(Diabetic Type 2) Muscle myoblasts	CC-2901	SkGM® 2 Bulletkit®	CC-3245	CC-3246	CC-3244
D-RPTEC-Diab T2	(Diabetic Type 2) Renal proximal tube epithelial cells	CC-2925	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
D-PrAd-S-Diab T2	(Diabetic Type 2) Subcutaneous preadipocyte cells	PT-5022	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
D-PrAd-V-Diab T2	(Diabetic Type 2) Visceral preadipocyte cells	PT-5024	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
Endothelial Cells – Normal						
HAEC	Aortic endothelial cells	CC-2535	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
HCAEC	Coronary artery endothelial cells	CC-2585	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HIAEC	Iliac artery endothelial cells	CC-2545	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HPAEC	Pulmonary artery endothelial cells	CC-2530	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176
HUVEC*	Umbilical vein endothelial cells	See table below	N/A	N/A	N/A	N/A
HUVEC-XL*	Umbilical vein endothelial cells	191027 See table below	EGM® 2 Bulletkit®	CC-3162	CC-3156	CC-4176

Cell Abbreviation	Description	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
HMVEC-C	Cardiac microvascular endothelial cells	CC-7030	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HMVEC-L	Lung microvascular endothelial cells (blood and lymphatic mix)	CC-2527	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HMVEC-dAd	Adult dermal microvascular endothelial cells (blood and lymphatic mix)	CC-2543	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HMVEC-dNeo	Neonatal dermal microvascular endothelial cells (blood and lymphatic mix)	CC-2505	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
HMVEC-Bd	Bladder microvascular endothelial cells	CC-7016	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147
UtMVEC-Myo	Uterine microvascular endothelial cells	CC-2564	EGM® 2MV Bulletkit®	CC-3202	CC-3156	CC-4147

Please see section Diabetes Type 1 and 2 for diseased endothelial cells.

*HUVEC Type	Characteristics	Catalog Number
Isolated in EGM® Media	Isolated in absence of defined growth factors. Contains BBE. No exogenous VEGF	CC-2517 (single donor), CC-2519 (pooled donor)
Isolated in EGM®-Plus Media	Improved version of part number CC-2517. Offers faster proliferation rates than HUVEC isolated in EGM® Growth Media. No exogenous VEGF	CC-2935 (single donor)
Isolated in EGM® 2 Media	Isolated in presence of growth factors such as VEGF, rhFGF, rhEGF, and others. Does not contain BBE	C2517A (single donor), C2519A (pooled donor) 00191027 (XL size)
Pre-screened HUVECs in EGM® 2 Media	Screened for angiogenesis markers and test positive for expression of eNOS, Axl, Tie-2 and VEGFr2	C2517AS (single donor), C2519AS (pooled donor)

Please see section Diabetes Type 1 and 2 for diseased endothelial cells.

Epithelial Cells - Normal and diseased						
HMEC	Mammary epithelial cells	CC-2551	MEGM® Bulletkit®	CC-3150	CC-3151	CC-4136
PrEC	Prostate epithelial cells	CC-2555	PrEGM™ Bulletkit®	CC-3166	CC-3165	CC-4177
SAEC	Small airway epithelial cells	CC-2547	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
SAEC-ALI	Small airway epithelial cells guaranteed for ALI differentiation	CC-2547S	S-ALI™ Bulletkit®	CC-4539	N/A	N/A
NHBE with RA	Bronchial epithelial cells with retinoic acid	CC-2540	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
NHBE without RA	Bronchial epithelial cells without retinoic acid	CC-2541	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
NHBE-ALI	Bronchial epithelial cells guaranteed for ALI differentiation	CC-2540S	B-ALI™ Bulletkit®	193514	N/A	N/A
HRCE	Cortical epithelial cells	CC-2554	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
HRE	Renal epithelial cells	CC-2556	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
RPTEC	Renal proximal tube epithelial cells	CC-0168	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
DHBE-As	(Asthma) Bronchial epithelial cells	194911	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
DHBE-As-ALI	(Asthma) Bronchial epithelial cells guaranteed for ALI differentiation	194911S	B-ALI™ Bulletkit®	193514	N/A	N/A
DHBE-COPD	(COPD) Bronchial epithelial cells	195275	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
DHBE-COPD-ALI	(COPD) Bronchial epithelial cells guaranteed for ALI differentiation	195275S	B-ALI™ Bulletkit®	193514	N/A	N/A
D-SAEC-COPD	(COPD) Small airway epithelial cells	CC-2934	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
DHBE-CF	(Cystic Fibrosis) Bronchial epithelial cells	196979	BEGM® Bulletkit®	CC-3170	CC-3171	CC-4175
D-SAEC-CF	(Cystic Fibrosis) Small airway epithelial cells	CC-2933	SAGM™ Bulletkit®	CC-3118	CC-3119	CC-4124
D-RPTEC-Diab T2	(Diabetic Type 2) Renal proximal tube epithelial cells	CC-2925	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127

Fibroblasts - Normal and Diseased						
AoAF	Aortic adventitial fibroblasts	CC-7014	SCGM™ Bulletkit®	CC-3205	CC-3204	CC-4181
NHCF-A	Atrial cardiac fibroblasts	CC-2903	FGM® 3 Bulletkit®	CC-4526	CC-3131	CC-4525
NHCF-V	Ventricle cardiac fibroblasts	CC-2904	FGM® 3 Bulletkit®	CC-4526	CC-3131	CC-4525
NHDF-Ad	Adult dermal fibroblasts	CC-2511	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
NHLF	Lung fibroblasts	CC-2512	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126

Cell Abbreviation	Description	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
HPdLF	Peridontal ligament fibroblasts	CC-7049	SCGM™ Bulletkit®	CC-3205	CC-3204	CC-4181
DHLF-As	(Asthma) Lung fibroblasts	194912	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
DHLF-COPD	(COPD) Lung fibroblasts	195277	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
DHLF-IPL	(Idiopathic Lung Fibrosis) Lung fibroblasts	CC-7231	FGM® 2 Bulletkit®	CC-3132	CC-3131	CC-4126
Pancreatic Islets						
Available through CellBio Service						
Progenitor Cells – Normal						
OCP	Osteoclast precursors	2T-110	N/A	N/A	PT-8201	N/A
CD34+	Bone marrow CD34+ progenitor cells (cryopreserved)	2M-101	N/A	N/A	N/A	N/A
CD34+	Human cord blood CD34+ progenitor cells (cryopreserved)	2C-101	N/A	N/A	N/A	N/A
Pr-Ad-S	Preadipocytes - subcutaneous	PT-5001, PT-5020	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
Pr-Ad-V	Preadipocytes - visceral	PT-5005	PGM™ 2 Bulletkit®	PT-8002	PT-8202	PT-9502
Prostate Cells – Normal						
PrEC	Prostate epithelial	CC-2555	PrEGM™ Bulletkit®	CC-3166	CC-3165	CC-4177
Renal Cells – Normal and Diseased						
HRCE	Cortical epithelial cells	CC-2554	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
HRE	Renal epithelial cells	CC-2556	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
RPTEC	Renal proximal tube epithelial cells	CC-2553	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
D-RPTEC-Diab T2	(Diabetic Type 2) Renal proximal tube epithelial cells	CC-2925	REGM™ Bulletkit®	CC-3190	CC-3191	CC-4127
Skeletal and Skeletal Muscle Cells – Normal and Diseased						
NHAC-kn	Articular chondrocytes, knee	CC-2550	CDM™ Bulletkit®, CGM™ Bulletkit®	CC-3225, CC-3216	CC-3226, CC-3217	CC-4408, CC-4409
HPdLF	Peridontal ligament fibroblasts	CC-7049	SCGM™ Bulletkit®	CC-3205	CC-3204	CC-4181
HSMM	Skeletal muscle myoblasts	CC-2580	SkGM® 2 Bulletkit®	CC-3245	CC-3246	CC-3244
D-HSMM-Diab T2	(Diabetic Type 2) Muscle myoblasts	CC-2901	SkGM® 2 Bulletkit®	CC-3245	CC-3246	CC-3244
NH0st	Normal human osteoblasts	CC-2538	OGM™ BulletKit®	CC-3207	CC-3208	CC-4193
OCP	Osteoclast precursors	2T-110	N/A	N/A	PT-8201	N/A
Smooth Muscle Cells – Normal and Diseased						
AoSMC	Aortic smooth muscle cells	CC-2571	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
CASMC	Coronary artery smooth muscle cells	CC-2583	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
BSMC	Bronchial smooth muscle cells	CC-2576	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
PASMC	Pulmonary artery smooth muscle cells	CC-2581	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
DBSMC-As	(Asthma) Bronchial smooth muscle cells	194850	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
DBSMC-COPD	(COPD) Bronchial smooth muscle cells	195274	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
DBSMC-CF	(Cystic Fibrosis) Bronchial smooth muscle cells	196980	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
D-CASMC-Diab T1	(Diabetic Type 1) Coronary artery smooth muscle cells	CC-2917	SmGM® 2 Bulletkit®	CC-3182	CC-3181	CC-4149
Stem Cells – Normal						
ADSC	Adipose-derived stem cells	PT-5006	ADSC™ Bulletkit®	PT-4505	PT-3273	PT-4503
DPSC	Dental pulp stem cells	PT-5025	DPSC™ Bulletkit®	PT-3005	PT-3927	PT-4516

Cell Abbreviation	Description	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
MSC	Mesenchymal stem cells	PT-2501	MSCGM™ Growth Bulletkit®, MSC Osteogenic Bulletkit®, MSC Chondrogenic Bulletkit®, MSC Adipogenic Bulletkit®	PT-3001 PT-3002 PT-3003 PT-3004	PT-3238	PT-4105

Cryopreserved Animal Primary Cells

Cell Abbreviation	Description	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
Cardiac Cells						
R-CM	Rat cardiac myocytes	R-CM-561	RCGM™ Bulletkit®	CC-4515	CC-3275	CC-4516
R-ASM	Rat aortic smooth muscle cells	R-ASM-580	DMEM:F12 + supplements	N/A	N/A	N/A
Neural Cells						
R-Cx	Rat Brain cortex neurons	R-Cx-500	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
R-Hi	Rat brain hippocampus neurons	R-Hi-501	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
R-Cp	Rat brain striatum neurons	R-Cp-502	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
R-Drg	Rat dorsal root ganglion neurons	R-Drg-505	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
R-eDrg	Embryonic rat dorsal root ganglion neurons	R-eDrg-515	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
R-Cb	Rat cerebellar neurons	R-Cb-503	N/A	CC-4512	CC-3256	CC-4511, CC-4462
R-HTh	rat brain hypothalamic neurons	R-HTh-507	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
R-CxAs	Rat brain cortex astrocytes	R-CxAs-520	AGM™ Bulletkit®	CC-3186	CC-3187	CC-4123
R-HiAs	Rat brain hippocampus astrocytes	R-HiAs-521	AGM™ Bulletkit®	CC-3186	CC-3187	CC-4123
R-CpAs	Rat brain striatum astrocytes	R-CpAs-522	AGM™ Bulletkit®	CC-3186	CC-3187	CC-4123
R-AsM	Rat brain Cx-Hi-Cp mix astrocytes	R-AsM-530	AGM™ Bulletkit®	CC-3186	CC-3187	CC-4123
R-G	Rat Microglial Cells	R-G-535	N/A	N/A	N/A	N/A
M-Cx	Mouse CD1 brain cortex neurons	M-Cx-400	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
M-Cp	Mouse CD1 brain striatum neurons	M-Cp-402	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
M-Cx	Mouse C57 brain cortex neurons	M-Cx-300	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
M-Cp	Mouse C57 brain striatum neurons	M-Cp-302	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
M-AsM	Mouse CD1 brain mixed astrocytes	M-AsM-430	AGM™ Bulletkit®	CC-3186	CC-3187	CC-4123
M-AsM	Mouse CD57 brain mixed astrocytes	M-AsM-330	AGM™ Bulletkit®	CC-3186	CC-3187	CC-4123
M-Hi	Mouse brain hippocampus neurons	M-Hi-401	PNGM™ Bulletkit®	CC-4461	CC-3256	CC-4462
Other Cell Types						
R-OST	Rat calvariae osteoblasts	R-Ost-583	N/A	N/A	N/A	N/A
MEF	Mouse embryonic fibroblasts	M-Fb-481	DMEM high glucose containing 10% FBS	N/A	N/A	N/A
iMEF	Irradiated mouse embryonic fibroblasts	M-iFb-482	DMEM high glucose with L-Gln containing 10% FBS	N/A	N/A	N/A

Cryopreserved Hepatocytes

Cell Type	Format	Cell Cat. No.	Recommended Medium	Bulletkit® Cat. No.	Basal Cat. No.	SingleQuot® Cat. No.
-----------	--------	---------------	--------------------	---------------------	----------------	----------------------

Human Hepatocytes and Non-parenchymal Cells – Plateable

Human Stellate Cells	Cryopreserved, plateable (1 Million Cells)	HUCLS-1M	StGM™ BulletKit®	MST-500BK	MST-500	MST-500SQ
Human Stellate Cells	Cryopreserved, plateable (0.2 Million Cells)	HUCLS-200K	StGM™ BulletKit®	MST-500BK	MST-500	MST-500SQ
Human Cryo Kupffer Cells	Cryopreserved, plateable (0.2 Million Cells)	HLKC-200K	KuGM™ BulletKit®	MKC-500BK	MKC-500	MKC-500SQ
Human Liver-Derived Endothelial Cells P1	Cryopreserved, plateable	HLECP1	EGM® 2 BulletKit®	CC-3162	CC-3156	CC-4176
Liver Mixed Non-parenchymal cells	Cryopreserved, plateable	HUCNP	StGM™ BulletKit®	MST-500BK	MST-500	MST-500SQ

Cell Type	Format	Cell Cat. No.	Basal Medium	Supplements
NoSpin™ HepaRG™ cells	Cryopreserved, plateable	NSHPRG	MH100	MHTAP, MHMET, MHPIT, MHPIT

Cell Type	Format	Cell Cat. No.	Thawing Media	Plating Media	Maintenance Media
-----------	--------	---------------	---------------	---------------	-------------------

Human Hepatocytes – Plateable

Human Hepatocytes, General Purpose	Cryopreserved, plateable	HUCPG	MCHT50	MP100	CC-3198
Human Hepatocytes, Interaction Qualified	Cryopreserved, plateable	HUCPI	MCHT50	MP100	CC-3198

Human Hepatocytes – Suspension

DonorPlex™ Human Hepatocytes, 10 donor pool	Cryopreserved, pooled suspension	HUCS10P	MCHT50P	N/A	CC-3198
DonorPlex™ Human Hepatocytes, 20 donor pool	Cryopreserved, pooled suspension	HUCS20P	MCHT50P	N/A	CC-3198
DonorPlex™ Human Hepatocytes 50 donor pool	Cryopreserved, pooled suspension	HUCS50P	MCHT50P	N/A	CC-3198
DonorPlex™ Human Hepatocytes, Female, 10 Donors	Cryopreserved, pooled suspension	HUCS10PF	MCHT50P	N/A	CC-3198
DonorPlex™ Human Hepatocytes, Male, 10 Donors	Cryopreserved, pooled suspension	HUCS10PM	MCHT50P	N/A	CC-3198
DonorPlex™ Human Hepatocytes, Female, 20 Donors	Cryopreserved, pooled suspension	HUCS20PF	MCHT50P	N/A	CC-3198
DonorPlex™ Human Hepatocytes, Male, 20 Donors	Cryopreserved, pooled suspension	HUCS20PM	MCHT50P	N/A	CC-3198
Human Hepatocytes	Cryopreserved, single donor suspension	HUCSD	MCHT50	N/A	CC-3198

Animal Hepatocytes – Plateable

Dog (Beagle) Hepatocytes	Cryopreserved, plateable	DBCP01	MCAT50	MP100	CC-3198
Mouse (C57Bl/6) Hepatocytes	Cryopreserved, plateable	MBCP01	MCRT50	MP100	MM250
Mouse (CD-1) Hepatocytes	Cryopreserved, plateable	MCCP01	MCRT50	MP100	CC-3198
Rat (Sprague Dawley) Hepatocytes	Cryopreserved, plateable	RSCP01	MCRT50	MP100	CC-3198

Cell Type	Format	Cell Cat. No.	Thawing Media	Plating Media	Maintenance Media
Rat (Wistar Han) Hepatocytes	Cryopreserved, plateable	RWCP01	MCRT50	MP100	CC-3198
Rat (Wistar) Hepatocytes	Cryopreserved, plateable	RICP01	MCRT50	MP100	CC-3198
Animal Hepatocytes – Suspension					
Dog (Beagle) Hepatocytes	Cryopreserved, suspension	DBCS01	MCAT50	N/A	CC-3198
Monkey (Cynomolgus) Hepatocytes	Cryopreserved, suspension	CYCS01	MCAT50	N/A	CC-3198
Mouse (C57Bl/6) Hepatocytes	Cryopreserved, suspension	MBCS01	MCRT50	N/A	MM250
Mouse (CD-1) Hepatocytes	Cryopreserved, suspension	MCCS01	MCRT50	N/A	MM250
Rat (Sprague Dawley) Hepatocytes	Cryopreserved, suspension	RSCS01	MCRT50	N/A	CC-3198
Rat (Wistar Han) Hepatocytes	Cryopreserved, suspension	RWCS01	MCRT50	N/A	CC-3198
Rat (Wistar) Hepatocytes	Cryopreserved, suspension	RICS01	MCRT50	N/A	CC-3198

Hematopoietic and Immune Cells

Cell Type	Cat. No.	Description	Size	Recommended Media
B Cells				
B Cells - Cryopreserved				
CD19+ B Cells (positively selected)	2W-600	Human CD19+ B cells isolated from peripheral blood using positive immunomagnetic selection, cryopreserved	≥10 million cells	04-380Q, 04-418Q, 02-060Q, 02-053Q
CD19+ B Cells (Negatively selected)	2W-601	Human CD19+ B cells isolated from peripheral blood using negative immunomagnetic selection, cryopreserved,	≥10 million cells	04-380Q, 04-418Q, 02-060Q, 02-053Q
CD14+ Monocytes				
Peripheral Blood - Cryopreserved				
CD14+ Cells (positively selected)	2W-400A	Peripheral Blood CD14+ Monocytes, positively selected	≥40 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
CD14+ Cells (positively selected)	2W-400B	Peripheral Blood CD14+ Monocytes, positively selected	≥20 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
CD14+ Cells (positively selected)	2W-400C	Peripheral Blood CD14+ Monocytes, positively selected	≥10 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
CD14+ Monocytes, (negatively selected)	2W-401	Human CD14+ monocytes, isolated from peripheral blood using negative immunomagnetic selection	≥10 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q, 04-448Q,
CD14+ Monocytes, (negatively selected)	2W-401A	Human CD14+ monocytes, isolated from peripheral blood using negative immunomagnetic selection	≥50 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q, 04-448Q,
CD34+ Stem/Progenitor Cells				
Bone Marrow - Cryopreserved				
Bone marrow CD34+ cells, (positively selected)	2M-101	Human CD34+ cells, isolated from mononuclear cells using positive immunomagnetic selection	≥ 100,000 cells	04-448Q
Bone marrow CD34+ cells, (positively selected)	2M-101A	Human CD34+ cells, isolated from mononuclear cells using positive immunomagnetic selection	≥ 300,000 cells	04-448Q
Bone marrow CD34+ cells, (positively selected)	2M-101B	Human CD34+ cells, isolated from mononuclear cells using positive immunomagnetic selection	≥ 500,000 cells	04-448Q
Bone marrow CD34+ cells, (positively selected)	2M-101C	Human CD34+ cells, isolated from mononuclear cells using positive immunomagnetic selection	≥1 million cells	04-448Q
Bone marrow CD34+ cells, (positively selected)	2M-101D	Human CD34+ cells, isolated from mononuclear cells using positive immunomagnetic selection	≥2 million cells	04-448Q
Cord Blood - Cryopreserved				
Bone Marrow and Cord Blood	2C-101	Cord Blood CD34+ Progenitor Cells	≥1 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q

Cell Type	Cat. No.	Description	Size	Recommended Media
Bone Marrow and Cord Blood	2C-101A	Cord Blood CD34+ Progenitor Cells	≥500 000 cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Cord Blood CD34+, with HLA info	2C-101H	Cord Blood CD34+ Progenitor Cells, with HLA info	≥1 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Cord Blood CD34+	2C-101X	Cord Blood CD34+ Progenitor Cells	≥2 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Cord Blood CD34+, with HLA info	2C-101HX	Cord Blood CD34+ Progenitor Cells, with HLA info	≥2 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Mobilized - Fresh				
CD34+ Stem/Progenitor Cells, (positively selected)	3Y-101C	Human CD34+ cells, isolated from mobilized peripheral blood using positive immunomagnetic selection	≥1 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q
Mobilized - Cryopreserved				
CD34+ Stem/Progenitor Cells, (positively selected)	2Y-101C	Human CD34+ cells, isolated from mobilized peripheral blood using positive immunomagnetic selection	≥1 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q
CD34+ Stem/Progenitor Cells, (positively selected)	2Y-101D	Human CD34+ cells, isolated from mobilized peripheral blood using positive immunomagnetic selection	≥5 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q
CD34+ Stem/Progenitor Cells, (positively selected)	2Y-101E	Human CD34+ cells, isolated from mobilized peripheral blood using positive immunomagnetic selection	≥10 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q
CD34+ Stem/Progenitor Cells, (positively selected)	2Y-101F	Human CD34+ cells, isolated from mobilized peripheral blood using positive immunomagnetic selection	≥25 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q
Dendritic Cells				
NHDC Dendritic Cells	CC-2701	Normal Human Dendritic Cells, cryopreserved	≥2.5 million cells	04-448Q
Mononuclear Cells				
Bone Marrow - Cryopreserved				
Bone Marrow MNCs	2M-125B	Bone Marrow Mononuclear Cells, 5 amps	5 x ≥25 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Bone Marrow MNCs	2M-125C	Bone Marrow Mononuclear Cells	≥25 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Bone Marrow MNCs	2M-125E	Bone Marrow Mononuclear Cells	≥300 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Human Bone Marrow	2S-101D	Bone Marrow Mononuclear Cells	≥5 million cells	04-380Q, 04-418Q, 02-060F, 02-060Q, 02-053Q
Bone Marrow, CD34-Depleted, MNC	4M-105	Bone Marrow, CD34-Depleted mononuclear cells	≥100 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q
Bone Marrow, MNCs	4M-125A	Mononuclear cells from human bone marrow	≥10 million cells	04-418Q, 02-060F, 02-060Q, 02-053Q, 04-448Q,
Peripheral Blood - Cryopreserved				
Human PBMCs	CC-2704	Mononuclear cells from human peripheral blood	≥10 million cells	04-448Q
Human PBMCs	CC-2705	Mononuclear cells from human peripheral blood	≥25 million cells	04-448Q
Human PBMCs	CC-2702	Mononuclear cells from human peripheral blood	≥50 million cells	04-448Q
Human PBMCs	CC-2703	Mononuclear cells from human peripheral blood	≥100 million cells	04-448Q
NK Cells				
Peripheral Blood - Cryopreserved				
Peripheral Blood NK Cells Negative	2W-501	Peripheral Blood Natural Killer Cells, negatively selected	≥5 million cells	04-448Q
Peripheral Blood NK Cells Positive	2W-502	Peripheral Blood Natural Killer Cells, positively selected	≥5 million cells	04-448Q
Osteoclast Precursors				
Osteoclast Precursors	2T-110	Osteoclast Precursors, cryopreserved	≥1 million cells	N/A
T Cells				
Peripheral Blood - Cryopreserved				
CD4+ T Cells, (negatively selected)	2W-200	Peripheral Blood CD4+ Helper T Cells, negatively selected	≥10 million cells	04-448Q
CD8+ T Cells, (negatively selected)	2W-300	Peripheral Blood CD8+ Cytotoxic T Cells, negatively selected	≥10 million cells	04-448Q
Peripheral Blood - Cryopreserved				
CD4+/CD45RA+ Naïve T Cells, (negatively selected)	2W-202	Human CD4+/CD45RA+ Naïve T cells, isolated from peripheral blood using negative immunomagnetic selection	≥5 million cells	04-448Q
CD4+/CD45RO+ Memory T Cells, (negatively selected)	4W-204	Human CD4+/CD45RA+ memory T cells, isolated from peripheral blood using negative immunomagnetic selection	≥5 million cells	04-448Q

Cell Type	Cat. No.	Description	Size	Recommended Media
CD8+/CD45RA+ Naive Cytotoxic T Cells, (negatively selected)	2W-302	Human CD8+/CD45RA+ naive cytotoxic T cells, isolated from peripheral blood using negative immunomagnetic selection	≥5 million cells	04-448Q
CD3+ Pan T Cells, (negatively selected)	2W-350	Human CD3+ T cells, isolated from peripheral blood using negative immunomagnetic selection	≥25 million cells	04-448Q
Stromal Cells - Cryopreserved				
Bone Marrow Stromal Cells	2M-302	Non-irradiated stromal cells from human bone marrow	≥5 million cells	N/A
Whole Tissue				
Bone Marrow - Fresh				
Human Bone Marrow	1M-105	Whole Bone Marrow	10 mL	04-418Q, 02-060F, 02-060Q, 02-053Q, 04-448Q
Human Bone Marrow	1M-125	Whole Bone Marrow	25 mL	04-418Q, 02-060F, 02-060Q, 02-053Q, 04-448Q
Human Bone Marrow	3M-103	Whole Bone Marrow	3 mL	04-380Q
Human Bone Marrow	3M-103C	Whole Bone Marrow	50 mL	04-380Q
Human Bone Marrow	3M-103D	Whole Bone Marrow	100 mL	04-380Q
Mobilized Blood - Fresh				
Mobilized Leuko Pak, RegF	3Y-300	Human leukopheresis product collected from peripheral blood mobilized with Neupogen® 10 µg/kg x 5, Day 5 Collection	1 Bag	04-448Q
Mobilized Leuko Pak, RegH	3Y-300A	Human leukopheresis product collected from peripheral blood mobilized with Neupogen® 10 µg/kg x 5, Mozobil® 240 µg/kg x 2, Day 5 Collection	1 Bag	04-448Q
Mobilized Leuko Pak, RegF	3Y-300B	Human leukopheresis product collected from peripheral blood mobilized with Neupogen® 10 mcg/kg/day x 5 days, Second Collection, Day 6 Collection	1 Bag	04-448Q
Mobilized Leuko Pak, RegH	3Y-300D	Human leukopheresis product collected from peripheral blood mobilized with Neupogen® 10 µg/kg x 5, Mozobil 240 µg/kg x 2, Day 6 Collection	1 Bag	04-448Q
Mobilized Leuko Pak, Moza	3Y-300E	Human leukopheresis product collected from peripheral blood mobilized with Mozobil® 20 mg/mL, 1.2 mL Single Dose	1 Bag	04-448Q
Peripheral Blood - Fresh				
Leuko Pak	3P-100	Human leukopheresis product collected from normal peripheral blood	Full bag	04-448Q
Leuko Pak	3P-100C	Human leukopheresis product collected from normal peripheral blood	Half bag	04-448Q
Leuko Pak	3P-105	Human leukopheresis product collected from normal peripheral blood	≥10 billion cells	04-448Q
Leuko Pak	3P-105B	Human leukopheresis product collected from normal peripheral blood	≥5 billion cells	04-448Q
Peripheral Blood - Frozen				
Leukopak	260240.01	Human leukopheresis product collected from normal peripheral blood	≥9.5 billion cells	04-448Q
Leukopak	260260.01	Human leukopheresis product collected from normal peripheral blood	≥5 billion cells	04-448Q
Leukopak	260280.01	Human leukopheresis product collected from normal peripheral blood	≥2.5 billion cells	04-448Q

Contact Lonza CellBio Services to discuss custom format and formulation options.

Recommended media depends on experimental setup. Please visit our eShop or contact Scientific Support for more information.

Contact Us

North America

Customer Service: +1 800 638 8174 (toll free)

order.us@lonza.com

Scientific Support: +1 800 521 0390 (toll free)

scientific.support@lonza.com

Europe

Customer Service: +32 87 321 611

order.europe@lonza.com

Scientific Support: +49 221 99199 400

scientific.support.eu@lonza.com

International

Contact your local Lonza distributor

Customer Service: +1 301 898 7025

scientific.support@lonza.com

International Offices

Australia	+ 61 1300 657 508
Belgium	+ 32 87 321 611
Brazil	+ 55 11 2069 8800
China	+ 86 21 6305 8866
France	0800 91 19 81 (toll free)
Germany	0800 182 52 87 (toll free)
India	+ 91 124 6052941
Japan	+ 81 3 6264 0660
Luxemburg	+ 32 87 321 611
Singapore	+ 65 6521 4379
The Netherlands	0800 022 4525 (toll free)
United Kingdom	0808 234 97 88 (toll free)

Learn more.



Lonza Walkersville, Inc. , Walkersville, MD 21793

For research use only. All trademarks belong to Lonza, registered in USA, EU or CH or to third party owners and used only for informational purposes. All third party copyrights have been reproduced with permission or belong to Lonza. The information contained herein is believed to be correct and corresponds to the latest state of scientific and technical knowledge. However, no warranty is made, either expressed or implied, regarding its accuracy or the results to be obtained from the use of such information and no warranty is expressed or implied concerning the use of these products. The buyer assumes all risks of use and/or handling. Any user must make his own determination and satisfy himself that the products supplied by Lonza Group Ltd or its affiliates and the information and recommendations given by Lonza Group Ltd or its affiliates are (i) suitable for intended process or purpose, (ii) in compliance with environmental, health and safety regulations, and (iii) will not infringe any third party's intellectual property rights. The user bears the sole responsibility for determining the existence of any such third party rights, as well as obtaining any necessary licenses. For more details: www.lonza.com/legal.

© 2024 Lonza. All right reserved.

CD-LI015 01/24



lonza.com/primary