PL BioScience

WE DELIVER CELL SOLUTIONS

CELL DATA BASE

PREPARED BY

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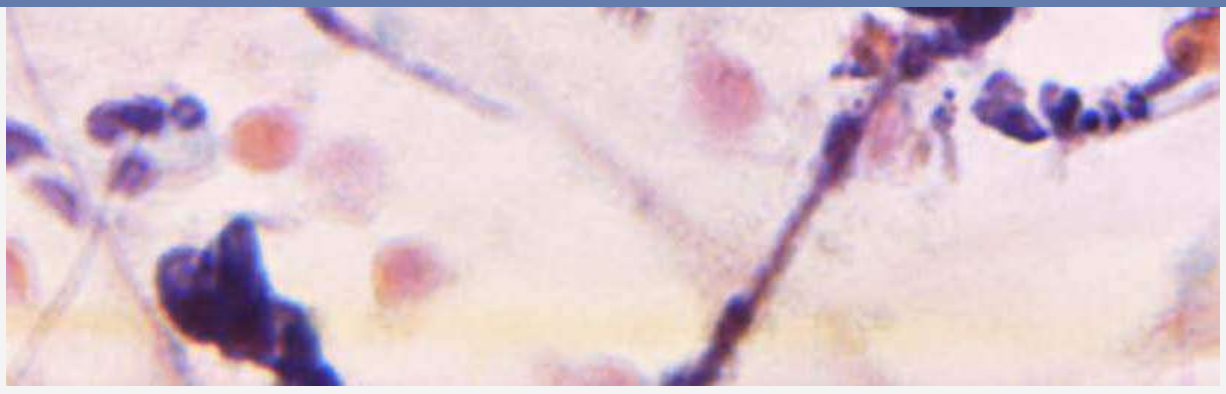


CELL EXPANSION

Cell culture is an essential procedure in life sciences where all cell types need to be maintained under lab conditions.

Human Platelet Lysate (HPL) resembles the natural cell environment for optimal growth results.

This Cell Database is based on customer feedback, publications and internal tests and investigations – summarizing cells which have shown favourable properties grown in Human Platelet Lysate.

01 **HUMAN PRIMARY CELLS**

List of human primary cells that showed favourable properties with HPL.

02 **HUMAN CELLS LINES**

List of human cell lines that showed favourable properties with HPL.

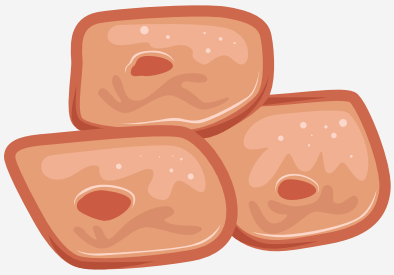
03 **ANIMAL PRIMARY CELLS**

List of animal primary cells that showed favourable properties with HPL.

04 **ANIMAL CELL LINES**

List of animal cell lines that showed favourable properties with HPL.

HUMAN PRIMARY CELLS



Cell Type	Short Form
Adipose-derived Stem Cells	ADSC
Chondrocytes	
Corneal keratocytes	
Dental Follicular Cells	DFSC
Fibroblasts	
Dermal Fibroblasts	
Foreskin Fibroblasts	
Gamma-Delta-T-Cells	
Head and Neck Squamous Cell Carcinoma Cells	PCI 13
Hematopoietic Stem Cells	HSCs
Umbilical vein endothelial cells	HUVEC
Neural crest cells	
Lymphocytes from Blood	
Macrophages/Monocytes	
Peridontal Ligaments Cells	
Neural crest cells	PDL
Stem Cells from Sweat Glands	SGSCs
Human Dental Pulp Stem cells	DPSC

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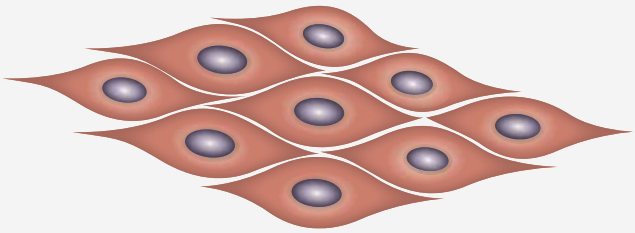
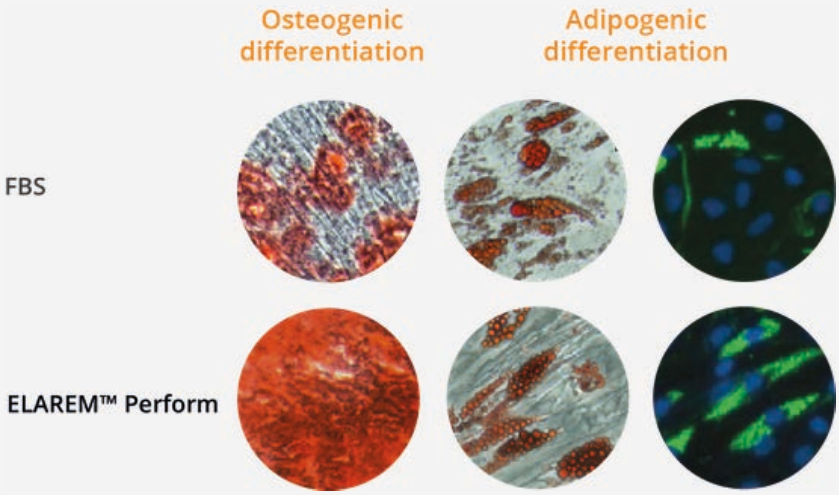
HUMAN PRIMARY CELLS



Mesenchymal Stromal Cells (MSCs)

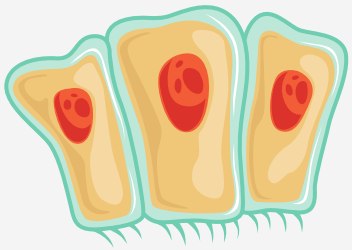
We dedicate a full page to these special cells, also known as Mesenchymal Stem Cells. Due to their multipotency, they are able to differentiate into a variety of cell types. This characteristic makes them interesting cells used in cell culture research and therapy.

Cell Type	Short Form
Mesenchymal Stem Cells from adipose tissue	MSC-AT
Mesenchymal Stem Cells from bone marrow	MSC-BM
Mesenchymal Stem Cells from MNCs	MSC-MNC
Mesenchymal Stem Cells from umbilical cord	MSC-UC
Mesenchymal Stem Cells differentiated from iPSCs	iPS-MSCs

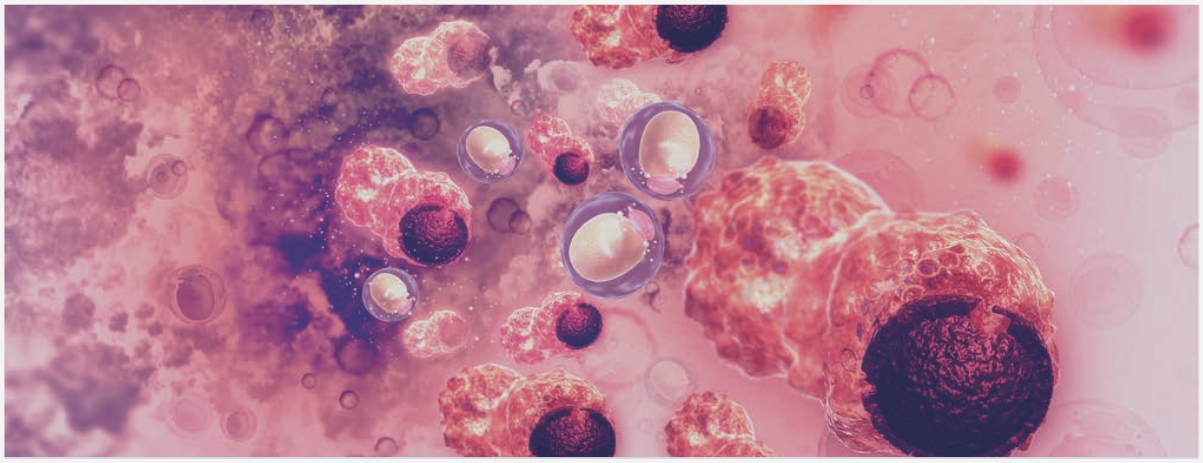


Isolation of Mesenchymal Stem Cells from Adipose Tissue with 10% ELAREM™ Perform or 10% FBS resulted in MSCs of similar cellular morphology. Osteogenic and adipogenic differentiation of MSCs was higher with ELAREM™ Perform than with FBS.

HUMAN CELL LINES



Cell Type	Short Form
Breast Carcinoma	BT-20
Breast Carcinoma	HBL100
Cervical cancer cells	HeLa
Colon cancer cell lines	LS 180
Epithelial colorectal adenocarcinoma cells	Caco-2
Lung Large-cell carcinoma	LCC
Melanoma	
Osteo Sarcoma	HOS(TE85)
Human osteosarcoma cell line	U-2 OS
Human urinary bladder carcinoma cell line	5637
Human lung adenocarcinoma cell line	HGC-27



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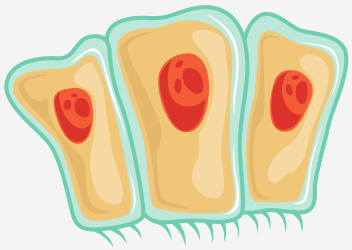
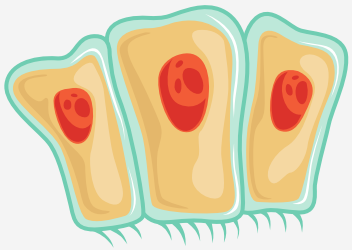
HUMAN CELL LINES

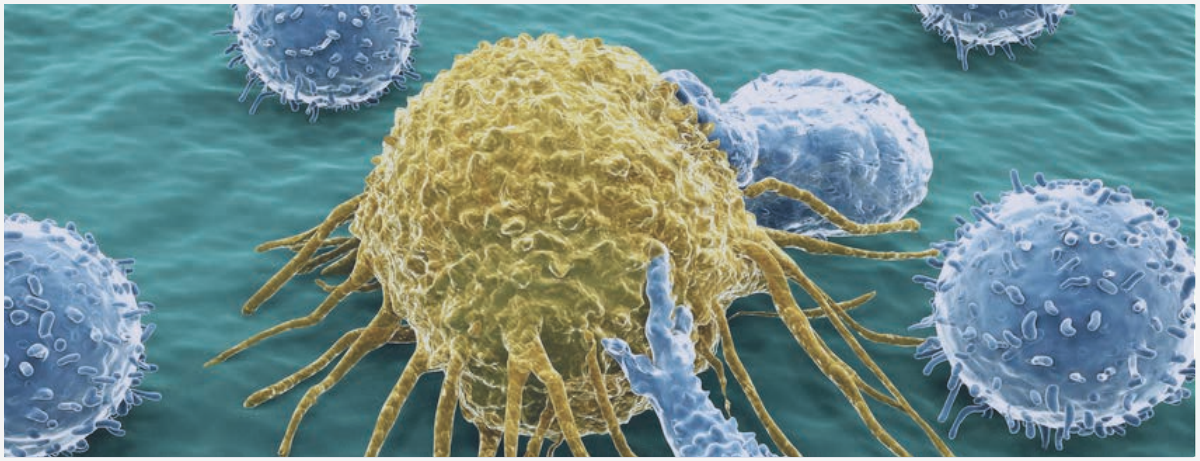


Cell Type	Short Form
Chordoma cell lines	
Dermal Fibroblasts	HFFF2
Dermal keratinocytes	NCTC 2544
Epithelia mammary gland; breast/duct	ZR-75-1
Human embryonal lung fibroblast	MRC-5
Human Embryonic Kidney 293 cells	HEK-293
Human Gingiva Fibroblasts	HGF-1
Human umbilical vein endothelial cells	HUVEC
Keratinocyte cell line from adult human skin	HaCaT
Hematopoietic Stem Cells	HSCs
Lymphocytes (immortalized)	
MSCs containing catalytic subunit of telomerase	hMSC-TERT
Retinal pigmented epithelium	ARPE-19
Human epithelial type 2	HEp-2
Human colorectal adenocarcinoma cell line	HROC24
Pancreas adenocarcinoma cell line	Panc-1
Human renal clear cell carcinoma cell line	RCC-ER

HUMAN CELL LINES



Cell Type	Short Form
Human continous tumor	A-549
Human continous tumor	Caco-2
Human continous tumor	MCF-7
Human continous tumor	U-251 MG
Human leukemia cells	HL-60
Human leukemia cells	Jurkat
Human leukemia cells	KG-1
Myelogenous leukemia	K562
Human myeloid leukemia cell line	Kasumi-1
Human acute monocytic leukemia cell line	THP-1



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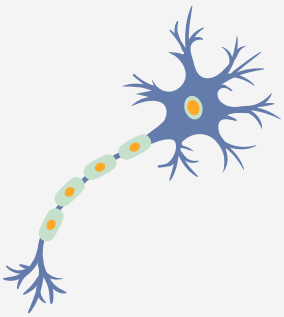
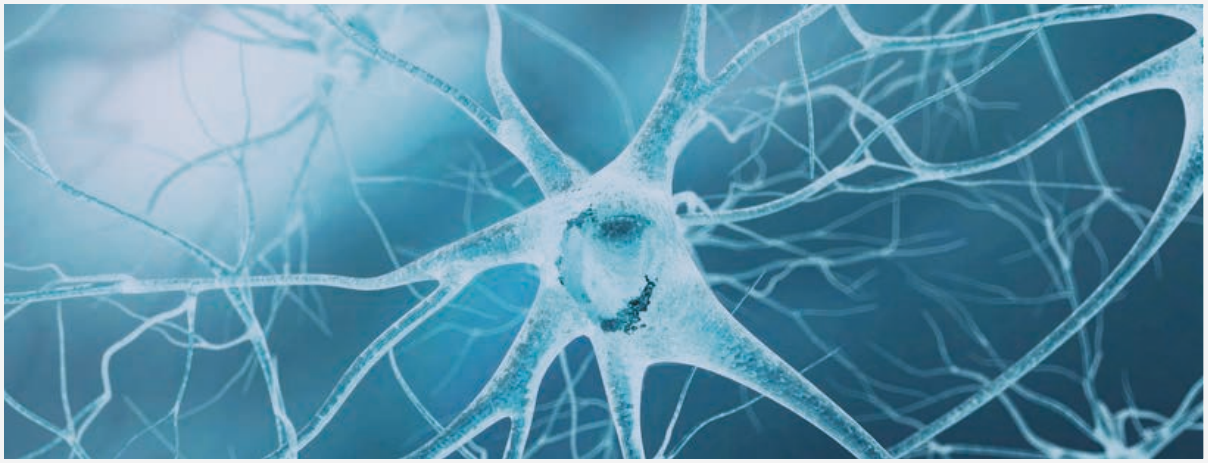
ANIMAL PRIMARY CELLS



Cell Type	Short Form
Bovine Corneal Endothelial Cells	CEC
Murine Astrocytes	
Murine Mesenchymal Stem Cells	MSC
Rat Mesenchymal Stem Cells	MSC
Murine Mikroglia	
Spiral ganglions from Sprague-Dawley rats	SGC



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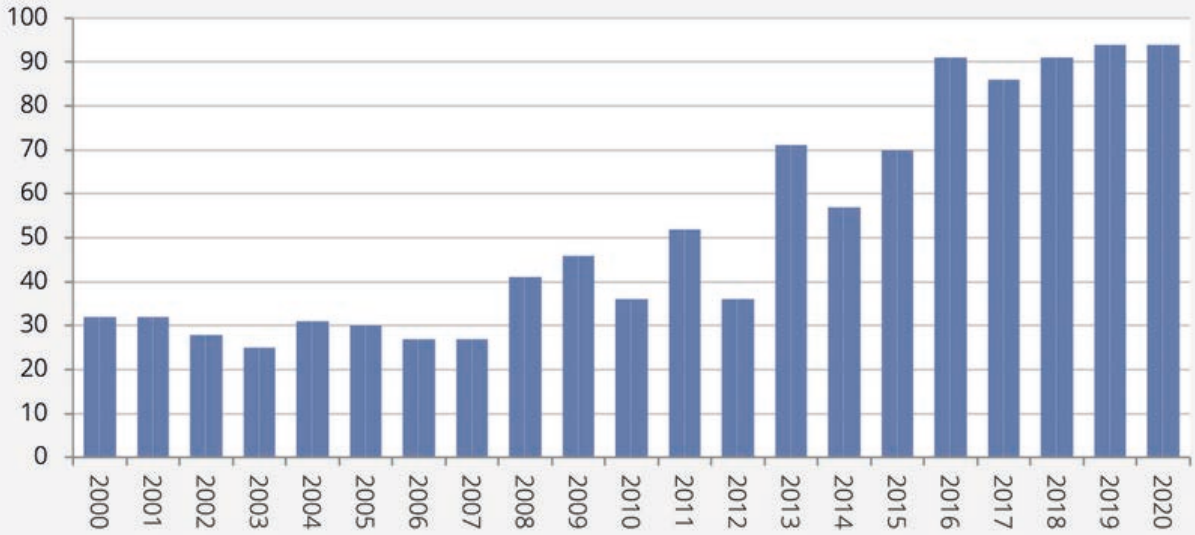
ANIMAL CELL LINES

Cell Type	Short Form
Adrenal gland	PC-12
African Green Monkey Fibroblast	COS-7
Chinese Hamster Ovary epithelial	CHO
Kidney (African Green Monkey)	Vero
Mouse adenocarcinoma cell line	RAG
Mouse fibroblast cell line	L929
Mouse mammary tumor 060562	MMT 060562
Mouse Mikoglia	BV-2
Mouse myeloma cell line	Sp2O-Ag14
Neuroblastoma cell line	Neuro-2a
Statens Seruminstitut Rabbit Cornea	SIRC
Testis from rat	R2C

GROWING INTEREST IN HPL

Number of publications on HPL over the years



Source: PubMed.

Interest in Human Platelet Lysate emerges

The number of Human Platelet Lysate publications has been increasing steadily for years. This also results in a growing number of tested cells of different origins.

PL BioScience contributes to this trend by being part of several research projects as well as performing own laboratory tests.

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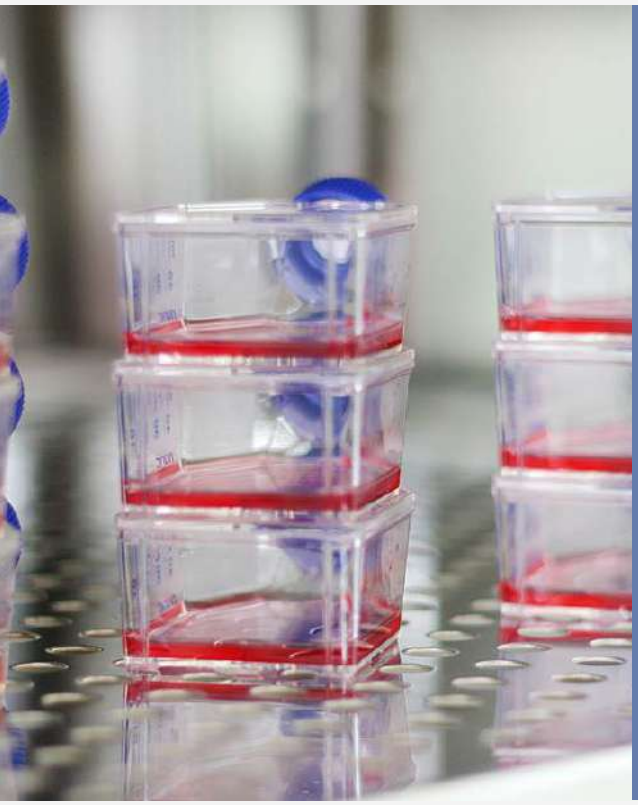


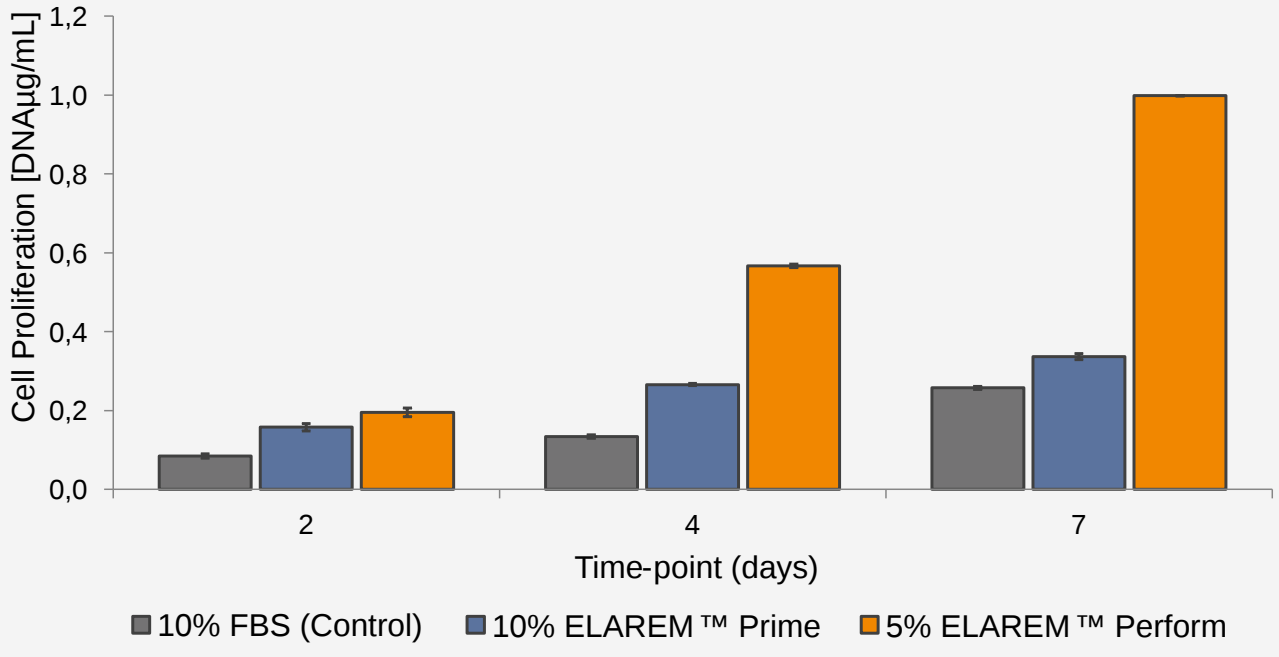
PERFORMANCE

Human Platelet Lysate contains abundant growth factors and cytokines derived from human platelets. Those factors have been shown to stimulate cellular proliferation and maintain phenotype and differentiation potential of various cells.

Final concentration of ELAREM™ human Platelet Lysate in cell culture medium can vary depending on cell type and experimental conditions. It is recommended to determine the optimal concentration – between 1% and 10% (v/v) – for the cells of interest.

"HPL can support the growth and proliferation of cells in culture, as platelets are known to play a vital role in tissue renewal and wound healing." (1)

Cell growth performance of hASC with ELAREM™ Prime, Perform & FBS



(1) Human Platelet Lysate efficiency, stability, and optimal heparin concentration required in culture of mammalian cells. Mohamed et al. (2020), The Korean Journal of Hematology. Blood Res 2020; 55(1): 35-43, Internet: https://www.bloodresearch.or.kr/journal/view.html?doi=10.5045/br.2020.55.1.35

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OUR COMPANY'S VISION FOR THIS PROJECT

We at PL BioScience do our best to enhance the advances in regenerative medicine with our animal-free cell culture tools. As a result, we produce Human Platelet Lysates which bear the potential to raise both stem cell research and therapy to the next level.

Our aim and our vision: The future of cell culture supplements is animal-free.

To achieve this aim,

- we raise awareness of alternatives to animal sera
- share scientific knowledge about Human Platelet Lysate and
- collect data about cells, cell lines and innovations in cell culture.

You can help us to achieve this aim! Share your experiences and knowledge about cells and HPL with us.

MEET OUR SUPPORT TEAM

support@pl-bioscience.com

DR. SILKE ISENHARDT

Product Support Specialist

As a biologist, Silke is our expert for cells and has deep knowledge about Human Platelet Lysate. She is your contact person when you have a question about our products and their handling.

PHILIPP SCHMIDT

Sales Specialist

A sales expert with long experience in B2B sales and customer support.
Philipp is your contact person when you have a question about products, prices or contracts.

SONJA ZADEL

Internal Sales Specialist

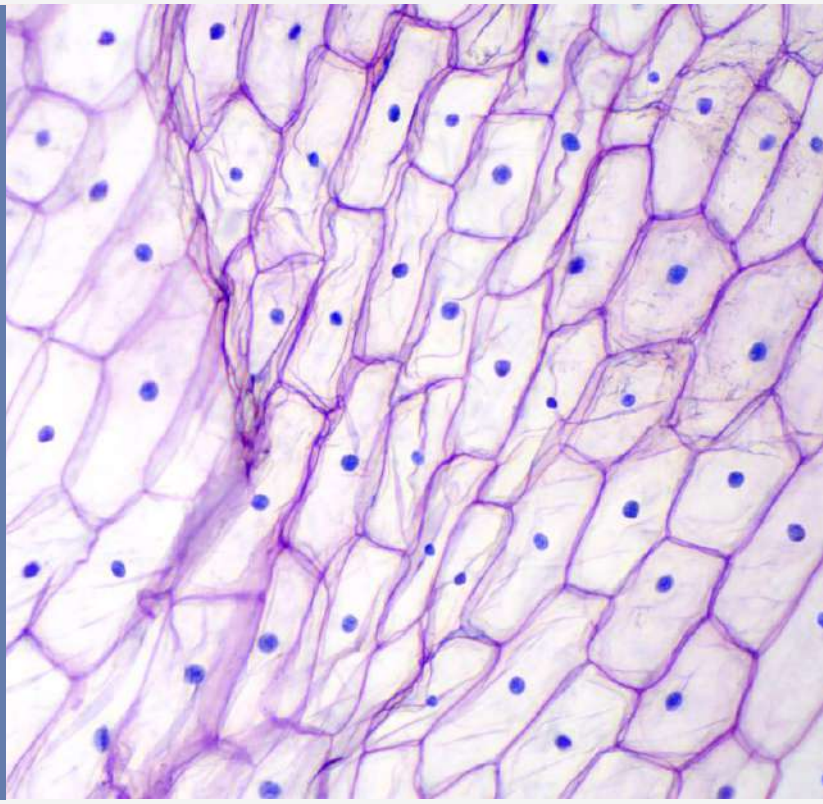
Sonja is our expert for internal sales coordination including import and export.
She is your contact person when you have a question about your delivery or product availability.

SOURCES

This Cell Database is based on customer feedback, publications and internal tests and investigations.

We constantly strive to expand our knowledge and by this, our cell database.

If you plan a project with cells that are not included in this list, please contact us.



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OWN PUBLICATIONS

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