LSG LIFE SCIENCE GROUP

Technical Information

Human Platelet Lysate (hPL)

Product Information

Human Platelet Lysate is available in the following grades.

Product Code	Product Description	Size
HPL-600X	Human Platelet Lysate (hPL) Lysantum Premium Research Grade	100, 500ml
HPL-601X	Human Platelet Lysate (hPL) Lysantum Premium Clinical Grade	100, 500ml
HPL-602X	Human Platelet Lysate (hPL) Lysantum Ultra Research Grade	180, 500ml
HPL-603X	Human Platelet Lysate (hPL) Lysantum Ultra Clinical Grade	180, 500ml

X denotes pack size.

Properties – Lysantum PREMIUM

Final Product release criteria Lysantum Premium		
	Unit	**Acceptable range**
Sterility		No aerobic and anaerobic growth
Endotoxin	EU/mL	<0.5
Mycoplasma		Below Detection Limit
Total Protein	g/L	15-30
Ca2+	mM	≤ 1.5
Osmolality	mOsm/kG	250-320
pH		6.5-8.5
Fibrinogen		≤ 30
Cell growth Performance		Proliferation of hADSC

Growth Factors and Cytokines		
PDGF-AA	ng/mL	40-70

PDGF-AB	ng/mL	30-60
IGF-I	ng/mL	20-50
TGF-b1	ng/mL	100-150
TGF-b2	ng/mL	2.5-3.5
TGF-b3	ng/mL	15-30
VEGF	ng/mL	0.5-1.0
EGF	ng/mL	2.2-3.0
TNF-a	pg/mL	30-60
IL-1a	pg/mL	5-30
IL-6	pg/mL	0.1-0.8
sCD40L	ng/mL	20-40

Cell Growth		
HUVEC Proliferation	Yes/no	Yes
Scratch Wound Assay 24h	% open wound	<20
MSC CD90,CD44, and CD73 expression	%	>90
MSC adipogenic differentiation	Yes/no	Yes
MSC osteogenic differentiation	Yes/no	Yes
T-cell proliferation	Hours	<50
T-cell CD3 expression	%	>90
HEK293 cell doubling time	Hours	<50
Human Dermal Fibroblasts (HDF) cell doubling time	Hours	<50
HeLa cells doubling time	Hours	<60
Chinese Hamster Ovary (CHO) cell doubling time	Hours	<60

Other		
Phosphate	mM	15-25
Citrate	mM	10-15
Sodium	mM	130-160
Potassium	mM	3-6
Chloride	mM	80-90
Glucose	mM	1.5-3.5
Lactate	mM	8-13
Glycocalicin	mM	1.0-4.0

Properties – Lysantum ULTRA

Product release criteria Lysantum Ultra		
	Unit	**Acceptable range**
Sterility		No aerobic and anaerobic growth
Endotoxin	EU/mL	<0.5
Mycoplasma		Below Detection Limit
Total Protein	g/L	40-80
Ca^{2+}	mM	≤ 2.0
Osmolality	mOsm/kG	280-340
pH		6.5-8.5
Fibrinogen		≤ 30
Cell growth Performance		Proliferation of hADSC

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Growth Factors and Cytokines		
PDGF-AB	ng/mL	100-150
IGF-I	ng/mL	50-80
TGF-b1	ng/mL	250-350
VEGF	ng/mL	2.0-4.0

Cell Growth		
MSC CD90,CD44, and CD73 expression	%	>90
T-cell proliferation	Hours	<50
T-cell CD3 expression	%	>90
HEK293 cell doubling time	Hours	<50

Other		
Phosphate	mM	3-7
Citrate	mM	15-20
Sodium	mM	130-160
Potassium	mM	3-6
Chloride	mM	90-100
Glucose	mM	8-13
Lactate	mM	12-20
Glycocalicin	mM	1.0-4.0