

Materials List for:

Parallel Measurement of Circadian Clock Gene Expression and Hormone Secretion in Human Primary Cell Cultures

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Materials

Name	Company	Catalog Number	Comments
Trypsin-EDTA	Invitrogen	25300-054	For muscle biopsy digestion
DPBS no calcium no magnesium	Invitrogen	14190-094	
HAM F-10	Invitrogen	41550-021	For myoblasts culture
FBS	Invitrogen	10270	Supplement to culture medium
Penicillin-Streptomycin	Sigma	P0781-100	Supplement to culture medium
Gentamycin	Axon	A1492.0001	Supplement to culture medium
Fungizone	Invitrogen	15290-026	Amphotericin B, supplement to culture medium
DMEM 1g/L glucose + Na pyruvate + glutamax	Invitrogen	21885-025	For myotubes culture
DMEM 1g/L glucose -Na Pyruvate - glutamax	Invitrogen	11880-028	Recording medium for LumiCycle
Glutamax	Invitrogen	35050-028	L-alanyl-L-glutamine dipeptide, supplement to recording medium
Accutase	Innovative Cell Technologies	AT-104	Cell detachment solution, for islet cell dissociation
CMRL	Gibco	21530-027	Culture medium for islet cells
Sodium Pyruvate	Gibco	11360-039	Supplement to culture medium
15 ml High-Clarity Polipropylene Conical Tube	Falcon	352096	
F75 flask	BD Falcon	353136	
3.5 cm Petri dish	BD Falcon	353001	
Forskolin	Sigma	F6886	Adenylyl cyclase activator, used for synchronization
Luciferin	Prolume LTD	260150	Supplement to recording medium
OptiMEM	Invitrogen	51985-026	Serum-free Minimal Essential Medium (MEM) used for human islet cells transfection
Lipofectamine RNAiMAX reagent	Invitrogen	13778-150	Transfection reagent
HiPerFect reagent	Qiagen	301705	Transfection reagent
ON-TARGET plus siCLOCK smartpool	Dharmacon	L-008212-00	
ON-TARGET plus non targeting siRNA #1 (siControl)	Dharmacon	D-001810-01	
DNeasy Blood & Tissue Kit	Qiagen	69504	For myotubes DNA extraction

RNeasy Plus Mini kit	Qiagen	74104	For myotubes RNA extraction
QIAshredder	Qiagen	79654	For myotubes RNA extraction
2 ml collecting tubes	Axygen	311-10-051	To collect the medium with the perfusion
Tissue culture Plate, 6 Well	BD Falcon	353046	To collect the medium with the perfusion
RNeasy Plus Micro kit	Qiagen	74034	For islet RNA extraction
Human IL-6 Instant ELISA kit	eBioscience	88-7066-22	
Human Insulin Kit Mercodia	Mercodia	10-1113-01	
Hydrochloric acid, min,37%,p.a.	Acros organics	124630010	Used for preparation of lysis buffer (375 ml Ethanol + 7.5%HCl + 117.5% H ₂ O)
Ethanol (>99.8%)	Fluka Analytical	02860-1L	Used for preparation of lysis buffer (375 ml Ethanol + 7.5%HCl + 117.5% H ₂ O)
Human Islets for Research	Prodo Laboratories		
Name	Company	Catalog Number	Comments
Equipment:			
Centrifuge	Heraeus	Megafuge 1.0R	
Water bath	VWR	1112A	at 37 °C
Tissue culture hood	Faster	SafeFastElite	
Tissue culture incubator	Heraeus	HeraCell 150	5% CO ₂ at 37 °C, no water due to the LumiCycle installation
Tissue culture incubator	Heraeus	HeraCell 150	5% CO ₂ at 37 °C, no water due to the LumiCycle installation
Tissue culture incubator	Thermo Scientific	Hera Cell 150i	5% CO ₂ at 37 °C
Shaker	Heidolph Instruments	Unimax 1010	For agitation of the siRNA mix
LumiCycle	Actimetrics		
LumiCycle software	Actimetrics		
CosinorJ software	EPFL		Freely available at: http://bigwww.epfl.ch/algorithms/cosinorj/
Rheodyne titan MX	ERC GmbH		Control software that controls the timing of the automated switch