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LIST OF ABBREVIATION

Symbol

β - \square cells	: Beta cells
μ l	: microliter

Abbreviation

AGE	: Advanced Glycation End Products
Ang-1	: Angiopoietin-1
ASCs	: Adipose tissue-derived stem cells
BMI	: Body Mass Index
CM-MSC	: Conditioned Medium of Mesenchymal Stem Cell
BM-MSC	: Bone Derived-Mesenchymal Stem Cell
CHD	: Coronary Hearth Disease
CSF	: Colony-Stimulating Factor
CVD	: Cardio-Vascular Disease
EASD	: European Association for the Study of Diabetes
EGF	: Epidermal Growth Factor
ESC	: Embrionic Stem Cell
ERK	: Extracellular-Signal-Regulated Kinase
FPG	: Fasting Plasma Glucose
FGF	: Fibroblast Growth Factor
GLP-1	: Glucagon-like Peptide 1
GLUT4	: Glucose Transporter 4
GOD-PAP	: Glucose Oxidase – Peroxidase Aminoantypirin
HSMMs	: Human Skeletal Muscle Myotubes
IGF-1	: Iinsulin Growth Factor 1
IL-6	: Interleukin
IRS-1	: Insulin receptor substrate 1 (IRS-1)
MI	: Myocardial Infarction
MMP-2	: Matrix metalloproteinases 2
Mnt	: Medical Nutrition Therapy
NA	: Nicotimide
NAD+	: Nicotinamide Adenine Dinucleotide
Ngn-3	: Neurogenin 3
NeuroD1	: Neuronal Differentiation 1
PARP	: Poly (ADP-Ribose) Polymerase
Pdx-1	: Pancreatic And Duodenal Homeobox 1
PDGF	: Platelet-derived Growth Factor
PD-MSC	: Placenta Derived Mesencymal Stem Cell
PPAR- γ	: Peroxisome Proliferator-Activate

ROS	Receptor Gamma
SZT	: Reactive Oxygen Species
Sqrt	: Streptozotocin
T2DM	: Square root
TGF- β	: Type 2 Diabetes Mellitus
TNF α	Transforming Growth Factor- β
VEGF	: Tumor Necrosis Factor
IRS-1 ^{tyr612}	: Vascular endothelial growth factor
	: Insulin Receptor Substrate - 1