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## LIST OF ABBREVIATION

### Symbol

$\beta$ -cells/ B-cells	: Beta cells
$\mu$ l	: microliter

### Abbreviation

Ang-1	: Angiopoietin-1
ANPT	: Angiopoietin
ATP	: Adenosine Triphosphate
BMSCs-CM	: Bone Marrow Mesenchymal Stem Cells Conditioned Medium
BNF	: Buffer Neutral Formalin
CM-MSC	: Conditioned Medium of Mesenchymal Stem Cell
EGF	: Epidermal Growth Factor
ELISA	: Enzyme Linked Immunosorbent Assay
FGF	: Fibroblast Growth Factor
GLP-1	: Glucagon-like Peptide 1
GLUT2	: Glucose Transporter 2
GOD-PAP	: Glucose Oxidase – Peroxidase Aminoantypirin
H&E	: Hematoxylin Eosin
HGF	: Hepatocyte Growth Factor
HOMA-B	: Homeostatic Model Assessment of Beta Cells Function
HOMA-S	: Homeostatic Model Assessment of Insulin Sensitivity
IFN- $\gamma$	: Interferon Gamma
IGF-1	: Iinsulin Growth Factor 1
IHC	: Immunohistochemistry
IL	: Interleukin
IRS-1	: Insulin receptor substrate 1 (IRS-1)
LIF	: Leukemia Inhibitory Factor
LPL	: Lipoprotein Lipase
MCP-I	: Monocyte Protein-I
NA	: Nicotimide
PBS	: Phosphate Buffer Saline
PCNA	: Proliferating Cell Nuclear Antigen
PDGF	: Platelet-Derived Growth Factor
PLL	: Poly-L-Lysine
PPAR- $\gamma$	: Peroxisome Proliferator-Activated Receptor Gamma
STZ	: Streptozotocin
T2DM	: Type 2 Diabetes Mellitus
TGF- $\beta$	: Transforming Growth Factor-Beta
TNF- $\alpha$	: Tumor Necrosis Factor-Alpha
Ucn3	: Urocortin3
VEGF	: Vascular Endothelial Growth Factor