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SYMBOLS AND ABBREVIATIONS

ABCC8	:	ATP binding Cassette sub family C member 8
ADA	:	American Diabetic Association
ADP	:	Adenosine Diphosphate
AGE	:	Advanced Glycation End products
AETOF	:	<i>Andrographis echinoides</i> Total Oligomeric Flavonoid
ALP	:	Alkaline Phosphatase
ALT	:	Alanine Transaminase
AMP	:	Adenosine MonoPhosphate
AMPK	:	Adenosine Mono Phosphate activated Protein Kinase
ANOVA	:	Analysis of Variance
Apo A-1	:	Apo lipoprotein A-1
AST	:	Aspartate Transaminase
ATP-I & II	:	Adenosine TriPhosphate I & II
BM	:	Basement Membrane
B/b/β-cells	:	Beta cells
cAMP	:	Cyclic Adenosine MonoPhosphate
CAT	:	Catalase
CE	:	Cholesterol Ester
CETP	:	Cholesterol Ester Transfer Protein
CHD	:	Coronary Heart Disease
CHO	:	Carbohydrate
CKD	:	Chronic Kidney Disease
CRP	:	C –Reactive Protein
CVD	:	Cardio Vascular Disease
CASAE	:	Crude Aqueous Suspension of <i>Andrographis echinoides</i>
dL	:	Deciliter
DC	:	Diabetic Control (untreated) rats
DCCT	:	Diabetes Control and Complications Trial
DG	:	Diabetic rats Treated with Glibenclamide
DAD	:	Diode Array Detector

DKA	:	Diabetic Keto Acidosis
DM	:	Diabetes Mellitus
DMRT	:	Duncan Multiple Range Test
DNA	:	Deoxy ribonucleic acid
DPN	:	Diabetic Peripheral Neuropathy
DPP4	:	Dipeptidyl Peptidase 4
EASD	:	European Association for the Study of Diabetes
EDTA	:	Ethylene Diamine Tetra Aceticacid.
EFA	:	Essential Fatty Acids
ESRD	:	End Stage Renal Disease
F -1.6 -BPase	:	Fructose -1,6- Bisphosphatase
FBG	:	Fasting Blood Glucose
FBPase	:	Fructose Bisphosphatase
FFA	:	Free Fatty Acid
FBG	:	Fasting Plasma Glucose
Fig.	:	Figure
g.	:	Gram
G6pase	:	Glucose 6 Phosphatase
G-6-PDH	:	Glucose 6- Phosphate Dehydrogenase
GAD 65	:	Glutamic Acid decarboxylase
GAG	:	Glycosaminoglycan
GBM	:	Glomerular Basement Membrane
GDM	:	Gestational Diabetes Mellitus
GFR	:	Glomerular Filtration Rate
GHb	:	Glycosylated Hemoglobin
GIP	:	Glucose Dependent Insulinotropic Polypeptide
GlcNAcase	:	N-acetyl-DGlucosaminidase β
GLP	:	Glucagon Like Poypeptide
GLUT 1 & 4	:	Glucose Transporter 1 & 4
GLUT 2	:	Glucose Transporter 2
GP	:	Glucose Phosphatase
Gpase	:	Glucose Phosphatase

GPx	:	Glutathione Peroxidase
GR	:	Glutathione Reductase
GSH	:	Reduced Glutathione
GST	:	Glutathione –S-transferase
h	:	hour
H & E	:	Hematoxylin and Eosin
H ₂ O ₂	:	Hydrogen Peroxide
HbA _{1c}	:	Glycosylated Hemoglobin
HDL	:	High Density Lipoprotein
HHS	:	Hyperglycemic Hyper Osmolar State
HK	:	Hexokinase
HLA	:	Human Leukocyte Antigen
HMG Co A	:	Hydroxy Methyl Glutaryl CoA
HMP	:	Hexose Mono Phosphate
HNC	:	Hyper osmolar Non Ketotic Coma
HNF	:	Hepatocyte Nuclear Factor
4- HNE	:	4- Hydroxy –Nonenal
IDDM	:	Insulin Dependent Diabetes Mellitus
IDF	:	International Diabetes Federation
IDL	:	Intermediate Density Lipoprotein
IFG	:	Impaired Fasting Glucose
IGT	:	Impaired Glucose Tolerance
IL	:	Interleukin
INF-γ	:	Interferon- γ
iNOS	:	Inducible Nitric Oxide Synthase
IPF	:	Insulin Promoter Factor
Kir 6.2	:	Potassium ion channel Inward Rectifier 6.2
Kg bw	:	kilogram bodyweight
LA	:	Lactic Acidosis
LC-ESI- MS/MS	:	Liquid Chromatography – Electrospray Ionization- tandem Mass Spectrophometer
LADA	:	Latent Autoimmune Diabetes of Adults.

LCAT	:	Lecithin Cholesterol Acyl Transferase
LDL	:	Low Density Lipoprotein
LFTs	:	Liver Function Tests
LPL	:	Lipoprotein lipase
LPO	:	Lipid peroxidation
mg	:	Miligram
µg	:	Microgram
ml	:	Mililiter
MDA	:	Malonaldehyde
MELAS	:	Mitochondrial Myopathy, Encephalopathy, Lactic Acidosis and stroke like syndrome
MI	:	Myocardial Infraction
MODY	:	Maturity Onset Diabetes of the Young
ns	:	Nano Second.
NAC	:	N- Acetyl-l- Cysteine
NADPH	:	NicotinamideAdeninie Dinucleotide Phosphate reduced
NC	:	Normal Control (untreated) rats
NCDs	:	Non Communicable Diseases
NF-kB	:	Nuclear factor kappa –β
NGSP	:	National Glycohemoglobin Standardization Program
NIDDM	:	Non Insulin Dependent Diabetes Mellitus
NO	:	Nitric Oxide
NTAETOF	:	Normal rats Treated with AETOF fraction
OECD	:	Organization for Economic Co-operation and Development
OGTT	:	Oral Glucose Tolerance Test
OHAs	:	Oral Hypoglycemic Agents
PAD	:	Peripheral arterial Disease
PEPCK	:	PhosphoEnol Pyruvate Carboxy Kinase
PKC	:	Protein Kinase C
PPAR γ	:	Peroxisome Proliferator Activate receptor γ
ROS	:	Reactive Oxygen Species
SGLT 1 & 2	:	Sodium Glucose Linked Transporters 1& 2

SGOT	:	Serum Glutamate Oxaloacetate Transaminase
SGPT	:	Serum Glutamate Pyruvate Transaminase
SMBG	:	Self Monitoring Blood Glucose
SOD	:	Super Oxide Dismutase
SREBP-1	:	Sterol Regulatory Element Binding Protein 1
STZ	:	Streptozotocin
SUR 1	:	Sulphonyl Urea Receptor 1
SUs	:	Sulphonyl Ureas
T1DM	:	Type 1 Diabetes Mellitus
T2DM	:	Type 2 Diabetes Mellitus
TBA	:	ThioBarbutric Acid
TBARS	:	ThioBarbituric Acid Reactive Substances
TC	:	Total Cholesterol
TCA	:	Tri Chloro Acetic acid
TG/TGL	:	Triglyceride
TIA	:	Transient Ischemic Attack
TNF- α	:	Tumor Necrosis Factor- α
TRAP	:	Total peroxy radical trapping antioxidant activity
t-RNA	:	transfer Ribonucleic Acid
TXA2	:	Thromboxane A2
Q-TOF	:	mass Quadropole Time of Flight.
TZDs	:	Thiazolidinediones
UDP	:	Uridine Di phosphate
UKPDS	:	United Kingdom Prospective Diabetic Study
VEGF	:	Vascular Endothelial Growth Factor
VLDL	:	Very Low Density Lipoprotein
WHO	:	World Health Organization