
ACKNOWLEDGEMENT

I wish to express my thanks firstly to my God for his great care and for giving me the support and effort to perform this work, without his help, nothing could be reached. Secondly to my supervisors for their guidance and encouragement.

I'm greatly indebted to Prof. Dr. Madiha Hassan Helmy, Professor of Biochemistry, Medical Research Institute, Biochemistry Department, Alexandria University. for valuable guidance, continues interest and constructive criticism during the whole study. I can not find any words to express the feeling of gratitude for her unlimited effort, continuous encouragement, cooperation and her supervision. I am also indebted to her for her generosity with her time, valuable support, and fruitful advice to complete this work.

I deeply express my appreciation, thanks and eternal gratitude. Prof. Dr. Maher Abdel Nabi Kamel, Assistant Professor of Biochemistry, Biochemistry Department, Medical research Institute, University of Alexandria, who supported me with encouragement and unlimited help to complete this work and thank fully for the valuable time he devoted in supervising this work.

Sincere thanks are sent to Dr. Nahed Hussen El-Sokry, Lecture, Department of Physiology, Faculty of Medicine, University of Alexandria who supported me with encouragement and unlimited help to complete this work.

Sincere thanks and appreciation to Dr. Saber Mohamed Eweda, Lecture, Department of Biochemistry, Faculty of Science, University of Alexandria

Sincere thanks and appreciation are extended to Prof. Dr Esam M. Said Abd El-Kader, Vegetable Department, Faculty of Agriculture, University of Alexandria for cooperation as well as her generous effort in the evaluation of this work.

*I am particularly grateful for the assistance given by **Professors** of Biochemistry Department and my friends salwa and shimaa who helped me, without them, i could not have completed my study.*

*I wish to extend my thanks to my **family** especially my parents for their support and prayers. Unfortunately, my **father** who passed away on 7 August 2011 and is no longer with us to celebrate the completion of my thesis.*

The friendship, love, care, and generosity of my brothers Hany, Ahmed, Haytham and Wael can never be sufficiently acknowledged.



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LIST OF ABBREVIATIONS

ΔA	:	Change in absorbance
<i>Ach-R</i>	:	<i>Acetylcholine receptor</i>
APS	:	Adaptor proteins
ADP	:	Adenosine diphosphate
ATP	:	Adenosine -5-triphosphate
AMPK	:	Adenosine monophosphate kinase
. α-ADR-R	:	<i>A2-adrenergic receptor</i>
AS160	:	Akt substrate of 160 kDa
Akt/PKB	:	Akt/protein kinase B
AICAR	:	5-aminoimidazole-4-carboxamide1- β -D-ribofuranoside
aPKC	:	Atypical Protein kinase C
β - cells	:	Beta-cells
BMI	:	Body mass index
CT	:	Carboxyl-termina
CAP	:	c-Cbl-associated protein
C3G	:	Crk SH3-binding guanine nucleotide-releasing factor
$\Delta\psi_m$:	<i>Change in plasma membrane potential.</i>
CHE	:	Cholesterol esterase
CHO	:	Cholesterol oxidase
cPKC	:	Conventional Protein kinase C
CoA	:	<i>A coenzyme</i>
DM	:	Diabetes mellitus
DAG	:	<i>Diacylglycerides</i>
DAP	:	Dihydroxy acetate phosphate
ERC	:	Endosomal recycling compartment
ELISA	:	Enzyme-linked immunosorbent assay
EDTA	:	Ethylene diamine tetra acetic acid
FA	:	Fatty acid
FAS	:	Fatty acid synthase
FPG	:	Fasting plasma glucose
FFAR1	:	<i>Free-fatty-acid receptor-1</i>
GIP-R	:	<i>Gastric inhibitory polypeptide receptor</i>
GDM	:	Gestational diabetes mellitus
Gliben Tx group	:	Glibenclamide treated group
G-6-Pase	:	Glucose-6- phosphatase
GLUT2	:	Glucose transporter-2
Glut	:	Glucose transporter proteins

GL/FA	:	Glycerolipid /fatty acid
GLP-1-R	:	<i>Glucagon-like peptide-1 receptor</i>
GL	:	<i>Glycerolipid</i>
GLUT- 4	:	Glucose transporter-4
GSK- 3	:	Glycogen synthase kinase 3
HbA1C (A1C)	:	Glycosylated hemoglobin
Grb-2	:	Growth factor receptor binding protein 2
HDL	:	High density lipoprotein
HSL	:	Hormone sensitive lipase
HRP	:	Horseradish peroxidase
HIV	:	Human immunodeficiency virus
IFG	:	Impaired fasting glucose
IGT	:	Impaired glucose tolerance
IKKβ	:	Inhibitor of nuclear factor kappa B kinase beta
IL-1	:	Interleukin-1
IDDM	:	Insulin-dependent diabetes mellitus
IGF	:	Insulin-like growth factor
IRI	:	Insulin resistance index
IRR	:	Insulin receptor-related receptor
IRS	:	Insulin receptor substrate proteins
JNK	:	Jun N-terminal kinase
JM	:	Juxtamembrane
kDa	:	Kilo- dalton
LC-CoA	:	Long-chain acyl-CoA
LDL	:	Low density lipoprotein
MCP-1	:	Macrophage chemotactic protein-1
Mal-CoA	:	Malonyl-CoA
MFS	:	Major Facilitator Superfamily
MODY	:	Maturity – onset diabetes of youth
MAG	:	<i>Monoacylglycerides</i>
NADPH	:	Nicotinamide adenine dinucleotide phosphate (reduced form)
NEFA	:	Non esterified fatty acid
NIDDM	:	Non insulin-dependent diabetes mellitus
nPKC	:	Novel Protein kinase C
NFκB	:	Nuclear factor kappa B
OGTT	:	Oral glucose tolerance test
OAA	:	<i>Oxaloacetate</i>
PPAR γ	:	Peroxisome proliferator - activated receptor γ
PI 3	:	Phosphatidylinositol-3

PI 3-kinase	:	Phosphatidylinositol 3-kinase
PC1& PC2	:	Prohormone convertases
PC	:	<i>Pyruvate carboxylase</i>
PDH	:	<i>Pyruvate dehydrogenase</i>
PDK1	:	3 - Phosphoinositide - dependent protein kinase 1
PI(3,4)P2	:	Phosphatidylinositol-3,4-bisphosphate
PI(3,4,5)P3	:	Phosphatidylinositol-3,4,5-trisphosphate
PI(4,5)P2	:	Phosphatidylinositol-4,5-bisphosphate
PTEN	:	Phosphatase and tensin homolog deleted on chromosome 10
PDE3B	:	Phosphodiesterase 3B
PEPCK	:	Phosphoenolpyruvate carboxykinase
PKC-θ	:	Protein Kinase C-theta
PP2A	:	Protein phosphatase 2A
PP1	:	Protein phosphatase-1
PTB1B	:	Protein tyrosine phosphatase 1B
SHIP2	:	SH2-containing inositol phosphatase 2
SHP-2	:	SH2-containing protein-tyrosine phosphatase-2
SH2	:	Src-homology 2
SH3	:	Src-homology 3
SC	:	Specialized compartment
STZ	:	Streptozotacin
SSN-R	:	<i>Somatostatin receptor</i>
SOCS-3	:	Suppressors of cytokine signaling-3
SREBP - 1c	:	Sterol regulatory element - binding proteins 1c
TMB	:	3, 3', 5, 5' - tetramethylbenzidine
TZDs	:	Thiazolidinediones
TGN	:	Trans-Golgi network
ROS	:	Reactive oxygen species
Tx	:	Treated diabetic rat
TG	:	<i>Triacylglycerides</i>
TNF-α	:	Tumor necrosis factor-alpha
T2D	:	Type 2 diabetes
T2DM	:	Type 2 diabetes mellitus
VLDL	:	Very low density lipoprotein
VAMP2	:	Vesicle-associated membrane protein 2
No Tx group	:	Untreated diabetic rats
