



Potential modulatory effect of cranberry powder extract in experimental model of fatty liver in rats

Submitted for the fulfillment of Master Degree in Pharmaceutical Sciences

(Pharmacology and Toxicology)

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

” وَقُلْ رَبِّ زِدْنِي عِلْمًا ”

صدق الله العظيم

سورة طه (الآية ١١٤)

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List of abbreviations

ACC	acetyl-CoA carboxylase
ADP	Adiponectin
ALT	Alanine transaminase
AMP-kinase	adenosine mono phosphate-kinase
AP-1	activator protein-1
apo B	apolipoprotein B
AST	aspartate aminotransferase
CAT	Catalase
ChREBP	carbohydrate-responsive element-binding protein
Chylo	Chylomicron
CV	central vein
CYP	cytochrome P450
DAG	Diacylglycerols
DNL	denovo-lipogenesis
ERK	extracellular receptor kinase
FA	fatty acid
FAS	fatty acid synthase
FFAs	free fatty acids
FXR	farnesoid X receptor
G6PC	glucose 6-phosphatase

List of abbreviations

GCKR	glucokinase regulatory protein
GLUT-4	insulin-dependent glucose transporter
GSH	Glutathione
GSH-Px	glutathione peroxidase
HSCs	hepatic stellate cells
IL	Interleukin
IL-6	interleukin-6
INR	international normalized ratio
InsulinR	Insulin receptor
IR	Insulin resistance
IRS	Insulin receptor substrate
I κ K	inhibitor kappa B kinase
I κ Kb	inhibitor of kappa B kinase b
JNK	C-Jun-N-terminal kinase
LPL	lipoprotein lipase
LXR	liver X receptor
MAPK	mitogen-activated protein kinase
MetS	metabolic syndrome
MRP	multidrug resistance protein
MTP	microsomal triglyceride transfer protein
MUFA	monosaturated fatty acids

List of abbreviations

NAFLD	Non-alcoholic fatty liver disease
NASH	Non-alcoholic steatohepatitis
NF- κ B	nuclear factor-kappa B
Nrf-2	Nuclear factor erythroid-2-related factor-2
ODC	ornithine decarboxylase
PACs	Proanthocyanidins
PI3K	phosphatidylinositol 3-kinase
PKC ϵ	protein kinase ϵ
PPAR	peroxisome proliferator activated receptor
PT	portal triad
PUFAs	polyunsaturated fatty acids
QR	quinone reductase
RIP	Receptor interacting protein
ROS	reactive oxygen species
SCD1	sterol CoA desaturase 1
SFA	saturated fatty acids
SGLT-1	intestinal sodium/glucose cotransporter
SOCS	Suppressor-of-cytokine-signaling
SOD	Super oxide dismutase
SREBP-1C	sterol regulatory element binding protein-1c
STAT	Signal transducer and activator of transcription

List of abbreviations

TCA	tricarboxylic acid
TG	Triglycerides
TGF- β	transforming growth factor- β
TNF- α	tumor necrosis factor- α
TRADD	TNF receptor-1 associated death domain protein
TRAF2	TNF receptor-associated factor 2
TZDs	Thiazolidinedione's
UA	ursolic acid
Ub	Ubiquitin mediated
VAT	visceral adipose tissue
VLDL	Very low density lipoprotein
α -SMA	α -smooth muscle actin

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