

LIST OF ABBREVIATIONS

ACAT1	Acetyl-CoA acetyltransferase 1
ACO2	Aconitase 2
ACTA2	Actin A2
ADORA2A	Adenosine A2A Receptor Gene
AGEs	Advanced Glycation end Products
ALDOB	Aldolase B
ALS	Amyotrophic Lateral Sclerosis
ANOVA	Analysis of Variance
AO	Antisense Oligo
APOA1	Apolipoprotein A1
APS	Ammonium Persulfate
ATP	Adenosine Triphosphate
ATP6B1G2	Vacuolar ATPase
ATXN1L	Ataxin 1
AU	Arbitrary Unit
BLAST	Basic Local Alignment Search Tool
BMD	Beckers Muscular Dystrophy
CaCl ₂	Calcium Chloride
CARNMT1	Carnosine N-methyltransferase 1

cDNA	Complimentary DNA
CDS	Conserved Domain Sequence
CH	Calponin Homology
CMV	Cytomegalovirus
CO ₂	Carbon Dioxide
COL1A1	Collagen Type 1
COX17	Cytochrome C Oxidase Copper Chaperon 17
CRISPR-Cas9	Clustered Regularly Interspaced Short Palindromic Repeats – CRISPR Associated Protein 9
CRM1	Chromosomal region maintenance 1
CSL	Chisel
DAG	Diacylglycerol
DAGLB	Diacylglycerol
DAPC	Dystrophin Associated Protein Complex
DCF	Dichlorofluorescein
DCFDA	Dichlorofluorescein Diacetate
DEGs	Differentially Expressed Genes
DGE	Differential Gene Expression
DGC	Dystroglycan Complex
DHAP	Dihydroxyacetone Phosphate
DHSB	Developmental Studies Hybridoma Bank

DLAT	Dihydrolipoyl Transacetylase
DLD	Dihydrolipoamide Dehydrogenase
DLL	Delta Like Ligand
DM	Differentiation Media
DMD	Duchenne Muscular Dystrophy
DMEM	Dulbecco's Modified Eagle Medium
DNA	Deoxyribonucleic Acid
DPF	Days Post Fertilization
DSL	Delta Serrate and LAG1
ECC	Excitation Contraction Coupling
ECM	Extracellular Matrix
EDTA	Ethylene Diamine Tetraacetate
EEA	Evoked Escape Assay
EGF	Epidermal Growth Factor
EIF2S1	Eukaryotic Translation Initiation Factor 2
ENO3	Enolase 3
ER	Endoplasmic Reticulum
ERK	Extracellular signal-regulated kinase
ETC	Electron Transport Chain
FACS	Fluorescence Activated Cell Sorting

FBP2	Fructose Biphosphatase 2
FDR	False Discovery Rate
FITC	Fluorescein Isothiocyanate
G3P	Glyceraldehyde 3 Phosphate
GADL1	Glutamate Decarboxylase-like 1
GAP	Glycerol 3 Phosphate
GAPDH	Glyceraldehyde 3 Phosphate Dehydrogenase
GATM	Glycine amidino Transferase
GCSH	Glycine Cleavage System Protein
GLO	Glyoxalase
GM	Growth Media
GOT1	Glutamine Oxaloacetate Transaminase
GPD	Glyceraldehyde 3 Phosphate Dehydrogenase
GPI	Glucose 6 Phosphate Isomerase
GRMD	Golden Retriever Model of DMD
gRNA	Guide RNA
H2DCFDA	Dichlorodihydrofluorescein Diacetate
hCDK4	Human Cyclin Dependant Kinase 4
Her9	Homologues of c-hairy1
HES	Hairy and Enhancer of Split1

HEY	Hairy/Enhancer of Split related with YRPW motif protein 1
HMGCS1	Hydroxymethylglutaryl-CoA Synthase
hmiR	Human Micro RNA
HPD	Hours Post Differentiation
HPF	Hours Post Fertilization
hTERT	Human Telomerase Reverse Transcriptase
ICM	Inner Cell Mass
IDI1	Isopentenyl diphosphate
IGF1	Insulin-like Growth Factor 1
IHC	Immunohistochemistry
ILs	Interleukins
IP3R	Inositol 1,4,5 triphosphate Receptor
Jag1	Jagged 1
JC1	5,5,6,6'-Tetrachloro- 1,1',3,3'tetraethylbenzylimidazolylcarbocyanine iodide
Kbp	Kilo Base Pair
KCL	Potassium Chloride
KDSR	Ketodihydrosphingosine Reductase
KEGG	Kyoto Encyclopaedia of Genes and Genomes
KO	Knock Out
LB	Luria Broth

LGMD	Limb Girdle Muscular Dystrophy
LTBP4	Latent TGF β binding Protein
MAOB	Monoamine Oxidase B
MAPK	Mitogen-activated protein kinase
MDH1	Malate Dehydrogenase 1
<i>mdx</i>	X chromosome-linked muscular dystrophy
MG	Methyl Glyoxal
MgCl ₂	Magnesium chloride
miRNA	Micro RNA
MMUT	Methylmalonyl-CoA Mutase
mRNA	Messenger RNA
MTJ	Myotendinous Junctions
Myf5	Myogenic Factor 5
MYH	Myosin Heavy chain
MYL4	Myosin Light Chain 4
MyoD	Myoblast Determination Protein
MyoG	Myogenin
NAC	N-acetyl Cystein
NADPH	Nicotinamide Adenine Dinucleotide Phosphate
NCBI	National Center for Biotechnology Information

NDUFC1	NADH Ubiquinone Oxidoreductase
NECD	Notch Extracellular Domain
NGG	Nucleobase Guanine Guanine
NHE	Sodium Hydrogen Exchanger
NHEJ	Non-Homologous End Joining
NICD	Notch Intracellular Domain
NO	Nitric Oxide
NOC	NADPH Oxidase Complex
NOS	Nitric Oxide Synthase
NPR1	Natriuretic Peptide Receptor 1
OD	Optical Density
OE	Overexpression
PAGE	Polyacrylamide Gel Electrophoresis
PAM	Protospacer Adjacent Motif
PANK	Pantothenate Kinase
PBS	Phosphate Buffer Saline
PBTx	Phosphate Buffer Triton
PCDNA	Plasmid cDNA
PCR	Polymerase Chain Reaction
PDE	Phodiesterase

PDHA1	Pyruvate Dehydrogenase E1 subunit α 1
PDP	Pyruvate Dehydrogenase Phosphatase
PFKM	Phosphofructokinase-Muscle
PGC	Peroxisome Prolifator-activated Receptor-gamma coactivator
PGK1	Phosphoglycerate Kinase 1
PGM1	Phosphogluco Mutase 1
PI	Propidium Iodide
PI3/AKT	Phosphoinositide 3 kinase/ Protein kinase B
PLC	Phospholipase C
PRKACB	Protein Kinase C β Type 1
PRKACP	Protein Kinase cAMP Activated Catalytic Subunit
PSMA2	Prostate Specific Membrane Antigen 2
PSMD7	Proteosome 26S
PTEN	Phosphatase and Tensin homolog
PUM2	Pumilio RNA Binding Family Member 2
RAGE	Receptor for AGEs
RNA	Ribonucleic Acid
ROS	Reactive Oxidation Species
rRNA	Ribosomal RNA
RTPCT	Real Time PCR

Ryr	Ryanodine receptors
SAA	Spontaneous Activity Assay
SD	Standard Deviation
SDHA	Succinate Dehydrogenase A
SDHD	Succinate Dehydrogenase D
SDS	Sodium Dodecyl Sulphate
SERCA	Sarcoendoplasmic reticulum calcium ATPase
SGPL1	Sphingosine 1 Phosphate Lyase 1
sgRNA	Single stranded Guide RNA
SLC25A4	Solute Carrier Family 25 Member 4
SMPDB	Small Molecule Pathway Database
SOEC	Store Operated Calcium Entry Channel
TD	Transmembrane Domain
TEMED	Tetramethylethylenediamine
TRITC	Tetramethylrhodamine
TRP	Transient Receptor Potential
TRPC	Transient Receptor Potential Canonical
TRPM	Transient Receptor Potential Melastatin
TRPV	Transient Receptor Potential Vanilloid
UCP2	Uncoupling Protein 2

UQCRC2	Ubiquinol Cytochrome C Reductase Core Protein 2
UV	Ultraviolet
XLDCM	X-linked Dilated Cardiomyopathy
XO	Xanthine Oxidase