Signalling to ERKs Nucleotide-binding domain, leucine rich repeat containing receptor (NLR) signaling pathways Arachidonic acid metabolism NOD1/2 Signaling Pathway Fatty acid metabolism Synthesis of Prostaglandins (PG) and Thromboxanes (TX) Phase I – Functionalization of compounds Biological oxidations Translocation of SLC2A4 (GLUT4) to the plasma membrane Activation of AMPK downstream of NMDARs mTOR signalling TP53 Regulates Metabolic Genes Cellular Senescence Toll Like Receptor 4 (TLR4) Cascade Oxidative Stress Induced Senescence MAPK targets/ Nuclear events mediated by MAP kinases Interleukin-17 signaling MAP kinase activation MyD88-independent TLR4 cascade TRIF(TICAM1)—mediated TLR4 signaling Toll Like Receptor 9 (TLR9) Cascade MyD88 cascade initiated on plasma membrane Toll Like Receptor 10 (TLR10) Cascade Toll Like Receptor 5 (TLR5) Cascade Toll Like Receptor 3 (TLR3) Cascade Toll Like Receptor 2 (TLR2) Cascade Toll Like Receptor TLR6:TLR2 Cascade Toll Like Receptor TLR1:TLR2 Cascade MyD88:MAL(TIRAP) cascade initiated on plasma membrane MyD88 dependent cascade initiated on endosome Toll Like Receptor 7/8 (TLR7/8) Cascade TRAF6 mediated induction of NFkB and MAP kinases upon TLR7/8 or 9 activation Mitochondrial biogenesis Regulation of TP53 Activity through Phosphorylation Regulation of TP53 Activity Transcriptional Regulation by TP53 Organelle biogenesis and maintenance Autophagy Macroautophagy مممممم 

2.5

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1.5

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