

Supplementary Table S4. Information of 22 differentially expressed genes in U2932 cell lines inducible expressing MyD88 vs. MyD88^{L265P}.

| | log2 FoldChange | Gene symbol | Gene name | Alternative protein names | Molecular function | Reported in cancer and/or human pathology | Reported in Lymphoma |
|---|--------------------|----------------|--|---|-----------------------|--|-------------------------|
| Downregulated by MyD88-L265P expression | -0,9211331 | ANKMY1 | Ankyrin Repeat And MYND Domain Containing 1 | ZMYND13 Zinc Finger MYND Domain- Containing Protein 13 TSAL1 Testis-Specific Ankyrin-Like Protein 1 FLJ20499 | unknown | Biliary atresia [162] Low expression associated with shorter metastasis-free survival time in Osteosarcoma [163] | No |
| | -0,59831331 | METTL25 B | Methyltransferase Like 25B | C1orf66 CGI-41 RRNAD1 Ribosomal RNA Adenine Dimethylase Domain- Containing Protein 1 Ribosomal RNA Adenine Dimethylase Domain Containing 1 | unknown | | No |
| | -0,68905052 | GVQW3 | GVQW Motif Containing 3 | | unknown | | No |

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| -0,83377977 | FHIP2B | FHF Complex Subunit HOOK Interacting Protein 2B | FAM160B2 RAI16 Family With Sequence Similarity 160 Member B2 Retinoic Acid Induced Protein 16 FLJ21801 | unknown | Can enhance the tumor- promoting effect [164] | No |
| -0,50564632 | POMT1 | Protein O- Mannosyltransferase 1 | LGMD2K Dolichyl- Phosphate- Mannose--Protein Mannosyltransfera se 1 EC 2.4.1.109 LGMDR11 MDDGA1 MDDGB1 MDDGC1 RT | Synthesizing of O-mannosyl [165] | Walker-Warburg syndrome [166] Leukemia [168] Acute myeloid leukemia and Kidney tumor [168] | No |
| -0,94536525 | TTLL3 | Tubulin Tyrosine Ligase Like 3 | HOTTL Tubulin Monoglycylase TTLL3 DKFZP434B103 EC 6.3.2.- | Regulates the stability and function of microtubules [169] | Ovarian cancer [170] | No |

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| | -0,81900454 | CROCC | Ciliary Rootlet Coiled-Coil | Rootlein TAX1BP2 ROLT KIAA0445 Tax1-Binding Protein 2 CROCC1 | Formation and maintenance of cilia cell movement and the sensing of the environment [171] Centriole linker [172] Centrosome cohesion [173] | Dysfunction of cilia has been linked to the development of certain types of cancer, including ovarian, pancreatic, and breast cancer [174–176], and CROCC may play a role in this process | No |
| | -0,50317365 | CD52 | CD52 | HE5 EDDM5 CDW52 Human Epididymis- Specific Protein 5 Epididymal Secretory Protein E5 Cambridge Pathology 1 Antigen CAMPATH-1 Antigen CDW52 Antigen HEL-S-171mP CDw52 | Regulate immune responses [177] | Lymphoma and leukemia [70] Chronic lymphocytic leukemia (CLL) therapy [69] | Yes |

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| | | | | Epididymis Secretory Sperm Binding Protein Li 171mP | | | |
| Upregulated by MyD88-L265P | 7,40836139 | ENSG0000 0258529 | Novel Protein | Mannosyltransferase EC 2.4.1.- PUS10 | unknown | - | No |
| | 1,234046639 | ZNF385C | Zinc Finger Protein 385C | CTD-2132N18.2 CTD-2132N18.4 | Nucleic acid binding activity and zinc ion binding activity. Regulates p53 functions in cell cycle arrest [178] | - | No |

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| 2,718040483 | PRAME | <p>Preferentially Expressed Antigen In Melanoma</p> <p>CT130</p> <p>MAPE</p> <p>Melanoma Antigen Preferentially Expressed In Tumors</p> <p>PRAME Nuclear Receptor</p> <p>Transcriptional Regulator</p> <p>Preferentially Expressed Antigen Of Melanoma</p> <p>Cancer/Testis Antigen 130</p> <p>Opa-Interacting Protein 4</p> <p>OIP4</p> <p>Opa-Interacting Protein OIP4</p> | <p>Substrate-recognition component of a Cul2-RING (CRL2) E3 ubiquitin-protein ligase complex and regulation of NFY promoters [179]</p> <p>Transcriptional repressor, inhibiting the signaling of retinoic acid through the retinoic acid receptors RARA, RARB and RARG [180]</p> | <p>Regulates cytotoxic drug sensitivity in Hodgkin Lymphoma [74]</p> <p>Acute myelogenous leukemia (AML) and multiple myeloma (MM) and other hematological malignancies [72]</p> <p>Leukemia [73]</p> <p>In DLBCL interact with EZH2 protein and its deletions were associated with poor outcomes [79]</p> | Yes |
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| | 0,715520862 | ELL2 | Elongation Factor For RNA Polymerase II 2 | MRCCAT1 Metastatic Renal Cell Carcinoma-Associated Transcript 1 RNA Polymerase II Elongation Factor ELL2 Elongation Factor, RNA Polymerase II, ELL-Related RNA Polymerase II, Elongation Factor Elongation Factor RNA For Polymerase II 2 | Elongation factor for RNA polymerase II [82] Involved in antibody secretion [80] Unfolded protein response [81] | Prostate ([181,182] Multiple myeloma [183,184] In ABC DLBCL, EEL2 represents one of the enrichment signature genes [83] | Yes |
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| 1,05058413 | CYP1A1 | Cytochrome P450 Family 1 Subfamily A Member 1 | <p>P450DX P1-450 P450-C CP11 Cytochrome P450, Subfamily I (Aromatic Compound- Inducible), Polypeptide 1 Hydroperoxy Icosatetraenoate Dehydratase Cytochrome P450 Form 6 Cytochrome P450 1A1 Cytochrome P450- P1 Cytochrome P450- C EC 1.14.14.1 CYPIA1 CYP1 Cytochrome P1- 450, Dioxin- Inducible Flavoprotein- Linked Monooxygenase Aryl Hydrocarbon</p> | <p>Metabolism of certain drugs, detoxification of harmful substances, and activation of polycyclic aromatic hydrocarbons (PAHs) found in tobacco smoke and other environmental pollutants [185]</p> | Polymorphisms in CYP1A1 might associate with increased DLBCL risk [186] | Yes |
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| | | | | Hydroxylase Xenobiotic Monooxygenase EC 4.2.1.152 AHRR AHH | | | |
| 0,598514207 | RAB29 | RAB29, Member Oncogene Family | RAS | RAB7L1 RAB7, Member RAS Oncogene Family-Like 1 Ras-Related Protein Rab-7L1 Ras-Related | Vesicular trafficking regulates T cell receptor recycling | Parkinson's Disease [188] | No |

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| | | | Protein Rab-29 Rab-7-Like Protein 1 RAB7L | primary cilium assembly [187] | | |
| 2,977058501 | AKAP6 | A-Kinase Anchoring Protein 6 | AKAP100 MAKAP PRKA6 KIAA0311 ADAP6 ADAP100 | Regulation of cellular signaling pathways [189,190] | Cardiovascular disease [191] | No |
| 0,757418431 | BCAS3 | Breast Carcinoma- Amplified Sequence 3 | BCAS3 Microtubule Associated Cell Migration Factor PHAF2 Phagophore Assembly Factor 2 FLJ20128 Rudhira GAOB1 Breast Carcinoma Amplified Sequence 4/3 Fusion Protein Metastasis Associated Antigen Of Breast Cancer | Regulator of cell growth, apoptosis, and chemoresistance as a part CRL4A complex mediating ubiquitination and proteasomal degradation of p53 [192] | Breast cancer with poor prognosis [192,193] | No |

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|-------------|--------|--------------------------------------|--|---|---|----|--|
| | | | | Breast Carcinoma Amplified Sequence 3 HEMARS MAAB | | | |
| 1,580603439 | LRRC32 | Leucine Rich Repeat Containing 32 | GARP Glycoprotein A Repetitions Predominant D11S833E Transforming Growth Factor Beta Activator LRRC32 Leucine-Rich Repeat-Containing Protein 32 Garpin CPRDD | Involved in immunosuppres sive cytokine TGF-β in immune cells, including T regs, platelets [84,85,194] | Immunosuppressive tumor microenvironment [195] Role on regulatory T cells in lung cancer [196] | No | |

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|--|-------------|-------|------------------------|-----------|--|--|--|-----|
| | 0,576702076 | CCL22 | C-C Motif Ligand 22 | Chemokine | MDC A-152E5.1 DC/B-CK STCP-1 ABCD-1 SCYA22 Small Inducible Cytokine Subfamily A (Cys- Cys), Member 22 CC Chemokine STCP-1 MGC34554 Stimulated T Cell Chemotactic Protein 1 Stimulated T-Cell Chemotactic Protein 1 | Immunoregulatory and inflammatory processes [197] Ligand for CCR4 receptor [93] | Head and neck squamous cell carcinoma [198,199] Breast cancer [197,200] Lung cancer [201] Colorectal adenocarcinoms [202] Hodgkin lymphoma [92,94] T-cell Lymphoma [93] B-cell lymphoproliferative disorder [95] In DLBCL, CCL22 has been described in the gene enrichment signature [83,96] | Yes |
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| | 0,932599387 | BATF | Basic Leucine Zipper ATF-Like Transcription Factor | B-ATF SFA-2 BATF1 Basic Leucine Zipper Transcription Factor, ATF-Like B-Cell-Activating Transcription Factor SFA2 SF-HT-Activated Gene 2 Protein | Transcriptional regulators modulation of AP-1 transcription complex [97] | Anaplastic large cell lymphoma [101] High BATF expression was demonstrated in DLBCL samples [106] and is considered a part of the gene enrichment signature of ABC DLBCL [83] | Yes |
|--|-------------|------|--|---|--|--|-----|

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| | 0,696590349 | NFKBIZ | NFKB Inhibitor Zeta | MAIL INAP IL-1 Inducible Nuclear Ankyrin- Repeat Protein B-Cells Inhibitor, Zeta I-Kappa-B-Zeta IkappaBzeta FLJ34463 IKBZ IkB-Zeta | Regulator of inflammation, cell proliferation and survival [110] | Bladder cancer [113] High IκBζ expression was explicitly detected in ABC DLBCL [45]. Moreover, amplification of the NFKBIZ locus has been observed in ~10% of ABC DLBCL cases [114] Overexpression of the IκBζ protein, which activates the NF-κB signaling pathway and provides a selective advantage to tumor cells [115,116] The increase of NFKBIZ transcript and IκBζ protein was demonstrated due to constitutive oncogenic NF-κB signaling in MyD88L265P or CARD11L244P-expressing lymphoma cells [45] | Yes |
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|-------------|--------|------------|--|--|--|-----|
| 1,370455524 | LGALS3 | Galectin 3 | <p>GALIG Advanced Glycation End-Product Receptor 3 Lectin, Galactoside-Binding, Soluble, 3 Carbohydrate-Binding Protein 35 Galactose-Specific Lectin 3 Laminin-Binding Protein IgE-Binding Protein Lectin L-29 LGALS2 GALBP MAC2 Epididymis Secretory Sperm Binding Protein Galactoside-Binding Protein Mac-2 Antigen CBP 35 CBP35 Gal-3 GAL3 L-31</p> | <p>Cell adhesion, proliferation, differentiation, apoptosis, signaling, and immune system function [119,120]</p> | <p>Acute myeloid leukemia (AML) [124] Chronic lymphocytic leukemia (CLL) [125] Prognostic factor in Hodgkin's lymphoma [126] In DLBCL, multiple studies associated overexpressed Gal-3 with increased cell proliferation, survival, and disease aggressiveness and identified GAL-3 as a prognostic factor and potential target for therapy [127,130–132]</p> | Yes |
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| 0,594912298 | CD44 | CD44 Molecule (Indian Blood Group) | <p>HUTCH-I</p> <p>HCELL</p> <p>CSPG8</p> <p>MC56</p> <p>Pgp1</p> <p>MDU2</p> <p>MDU3</p> <p>MIC4</p> <p>IN</p> <p>Hematopoietic Cell</p> <p>E- And L-Selectin</p> <p>Ligand</p> <p>GP90 Lymphocyte</p> <p>Homing/Adhesion</p> <p>Receptor</p> <p>Chondroitin</p> <p>Sulfate</p> <p>Proteoglycan 8</p> <p>Extracellular</p> <p>Matrix Receptor III</p> <p>Homing Cell</p> <p>Adhesion Molecule</p> <p>Heparan Sulfate</p> <p>Proteoglycan</p> <p>Phagocyte</p> <p>Glycoprotein 1</p> <p>Hyaluronate</p> <p>Receptor</p> <p>In(Lu) Related-P80</p> <p>Hermes Antigen</p> <p>Hermes-1</p> | <p>Multifunctional</p> <p>transmembrane</p> <p>receptor binding</p> <p>to various</p> <p>ligands,</p> <p>including</p> <p>hyaluronic acid</p> <p>(HA), collagen,</p> <p>and osteopontin,</p> <p>which can</p> <p>modulate its</p> <p>activity. Cell</p> <p>adhesion and</p> <p>migration, and it</p> <p>is involved in</p> <p>the activation</p> <p>and regulation</p> <p>of the immune</p> <p>system and the</p> <p>formation and</p> <p>maintenance of</p> <p>the extracellular</p> <p>matrix [139,142]</p> <p>Cell</p> <p>dissemination</p> <p>[143]</p> | <p>Hodgkin andnon-Hodgkin</p> <p>lymphoma [59]</p> <p>Prognostic factor in non-</p> <p>Hodgkin's lymphoma [55]</p> <p>In ABC DLBCL, CD44 was</p> <p>identified as a part of the</p> <p>gene enrichment signature</p> <p>[83]</p> | Yes |
|-------------|------|------------------------------------|--|---|--|-----|

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| | | | | ECMR-III HUTCH-1 ECM-III Epican PGP-1 CD44R CDw44 H-CAM LHR Extracellular Matrix Receptor-III Indian Blood Group Antigen Phagocytic Glycoprotein I CDW44 PGP-I | | | |
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Reference in the main text