

A/A	Name / NBCI ID / Type	Freq.	Targets	Biological Pathways	Related Disease	Ref.
1.	CSDE1 7812 Gene	10	TRIM33, CSDE1, lnc-SIKE1-2, SIKE1, RSBN1, AP4B1-AS1, OLFML3, NGF, TSPAN2, piR-58576 and NRAS	Pathway: Validated targets of C-MYC transcriptional repression Involved in: regulation of translational initiation, male gonad development, stress granule assembly, positive regulation of translation and CRD-mediated mRNA stabilization	Psoriasis	[1]
2.	FBNP4 23360 Gene	10	FBNP4, lnc-FAM180B-4, lnc-FBNP4-1, NUP160, C1QTNF4, PSMC3, PTPRJ, ACP2, CELF1, SPI1, piR-56133-040 and AGBL2	Pathway: Actin Polymerization and regulation. Involved in: Nuclear speck	Psoriasis	[2]
3.	HNF4A 3172 Gene	10	HNF4A, MIR3646, lnc-R3HDML-1, SRSF6, L3MBTL1, IFT52, FITM2, LINC01430, LINC01620, OSER1-DT, HNF4A-AS1, lnc-FITM2-5, lnc-SERINC3-4, R3HDML-AS1, SRSF6, IFT52, L3MBTL1, OSER1, MYBL2 and TTPAL	Pathway: Regulation of DNA-templated transcription Signaling pathway of: AMPK, TGF-beta, ERK and MAPK. Activation pathway of: LDLR, CYP27A1, GK, AKR1C4, C1QTNF5, NPC1L1, PCK1, G6PC1, PCSK9 and AFP. Involved in: Regulation of transcription by RNA polymerase II, transcription by RNA polymerase II and lipid metabolic process	Psoriasis DITRA* (MAPK)	[3]
4.	MECP2 4204 Gene	10	MECP2, lnc-MECP2-2, SNORA56, HCFC1, DKC1, IRAK1, TMEM187, PLXNA3, IKBKG, RENBP, ARHGAP4, ABCD1, piR-53177-056, SLC10A3, HSNALNG0140828 and lnc-IRAK1-3	Pathway: Gene expression (Transcription) and Transcriptional Regulation Signaling pathway of: ALK, MECP2 and GABA Activation pathway of: GAMT, SST, CREB1, DEAF1, YBX1, TET1, GPRIN1, PRPF3, OPRK1, NEMF and DNMT1 Involved in: negative regulation of transcription by RNA polymerase II, behavioral fear response, response to hypoxia, startle response and nervous system process involved in regulation of systemic arterial blood pressure.	Psoriasis	[3]
5.	PLEKHA1		PLEKHA1, lnc-C10orf120-1 and ARMS2	Pathway: Metabolism	Psoriasis	

	59338 Gene	10		Signaling pathway of: CD28/T Cell and PI3K Involved in: Luteinization, spermatogenesis, androgen metabolic process and estrogen metabolic process	DITRA* (CD28)	[4]
6.	TNPO2 30000 Gene	10	TNPO2, lnc-ASNA1-1, TRMT1, ZNF136, ZNF44, ZNF791, ZNF799, ZNF625, ZNF564, ZNF700, ZNF763, ZNF844, WDR83OS, ZNF20, RPS6P25, ZNF442, TRIR, ZNF490, ZNF878, ZNF823, ZNF491, ZNF439, ZNF788P, ZNF441, ZNF440, RPL17P47, piR-41875 and FBXW9	Pathway: Protein transport Signaling pathway of: AKT Involved in: Protein import into nucleus and intracellular protein transport	N/A	
7.	TINCR 257000 Gene / lncRNA	10	SNRPEP4, TINCR, lnc-SAFB2-3, lnc-TINCR-1, piR-42491-110, RPL36, DUS3L, RANBP3, LONP1, lnc-SAFB-1, ZNR4, piR-57460-331, TINCR and lnc-SAFB-1	Pathway: Mediate stabilization of differentiation mRNAs Controls human epidermal differentiation by a posttranscriptional mechanism, and Postdevelopmental somatic differentiation Activation Pathway of: MAPK, Wnt/ β -catenin and PTBP1/ATG5	Psoriasis DITRA* (MAPK)	[5]
8.	MALAT1 378938 lncRNA	10	ANXA2, PARP1, JAG1, AXL, AKT1, RHOA, FAS, ADAM10, miR-17-5p, miR-22-3p, miR-23a-3p, miR-25-3p, miR-26a-5p, miR-26b-5p, miR-28-5p, miR-30a-5p, miR-32-5p and miR-20a-5p	Signaling pathway of: Interleukins (IL1, IL2, IL3, IL4, IL6, IL10, IL12, IL13, IL15, IL17, IL20, IL21, IL35, IL37, ILRSHC), MAPK family (MAPK1, MAPK2, MAPK3), TLR4, ALK, STAT, JAK-STAT, GHR and Gastrin-CREB via PKC Activation pathway of: NFkB, MAPK1, MAP2K, MAPK3, STAT5, TLR4, TLR7 and TLR9. Involved in: lncRNA-mediated post-transcriptional gene silencing and cellular response to hypoxia positive regulation of miRNA catabolic process.	Psoriasis DITRA* (NFkB, MAPK, TLR4, JAK-STAT)	[6,7]
9.	NEAT1 283131 lncRNA	10	Ltb4r1, Snail2, DNA-PKcs, BCL-2, NF-kB, SRp40, COX-2, CTR1, Rsf-1, c-Myc, AURKB, let-7f-5p, let-7b-5p, let-7d-5p, let-7c-5p, let-7a-5p, miR-16-5p, miR-15a-5p, miR-17-5p and let-7e-5p	Signaling pathway of: Interleukins (IL1, IL2, IL3, IL4, IL6, IL7, IL10, IL12, IL13, IL15, IL20, IL21, IL37, ILRSHC), MAPK family (MAPK1, MAPK3), TLR4, ALK, STAT, JAK-STAT, GHR and Gastrin-CREB via PKC and MAPK.	Psoriasis DITRA* (NFkB, MAPK, TLR4, JAK-STAT)	[8]

				Activation pathway of: NFkB, MAPK, MAPK1, MAPK3, MAPKK, p38MAPK, STAT STAT5, TLR4, TLR7, TLR8 and TLR9. Involved in: lncRNA-mediated post-transcriptional gene silencing, nuclear body organization, miRNA-mediated post-transcriptional gene silencing and positive regulation of inflammatory response.		
10.	SNHG16 100507246 lncRNA	10	MUC5AC, SCD, MAPK1, mfn2, PRPS1, YY1, SLC2A4, LASP1, HMGB3, ITGA6, let-7c-5p, let-7b-5p, let-7d-5p, let-7f-5p, miR-16-5p, miR-15a-5p, miR-17-5p, miR-20a-5p, let-7a-5p and let-7e-5p	Signaling pathway of: Interleukins (IL1, IL2, IL3, IL4, IL6, IL7, IL10, IL12, IL13, IL15, IL20, IL21, IL37, ILRSHC), MAPK family (MAPK1, MAPK3), TLR4, ALK, STAT, JAK-STAT, GHR and Gastrin-CREB via PKC. Activation pathway of: NFkB, MAPK, MAPK1, MAPK3, MAPKK, p38MAPK, STAT STAT5, TLR4, TLR7, TLR8 and TLR9. Involved in: RNA processing	Psoriasis DITRA* (NFkB, MAPK, TLR4, JAK-STAT)	[9,10]
11.	TUG1 55000 lncRNA	10	AURKA, ANPEP, TRPC6, Timp1, TNF, Bcl2l11, RORA, ZEB1, ROCK1, SOX4, miR-34a-5p, miR-27b-3p, miR-17-5p, miR-199a-3p, miR-221-3p, miR-29a-3p, miR-29b-3p, miR-187-3p, miR-132-3p and miR-129-5p	Signaling pathway of: Interleukins (IL2, IL4, IL6, IL7, IL10, IL12, IL13, IL20, IL21, IL35, ILRSHC), MAPK family (MAPK, MAPK1, MAPK3), TLR4, ALK, STAT, JAK-STAT, GHR and Gastrin-CREB via PKC. Activation pathway of: NFkB, MAPK, MAP2K MAPK1, MAPK3, p38MAPK, STAT STAT5, TLR4, TLR7, TLR8 and TLR9.	Psoriasis R. Arthritis (TNF) DITRA* (NFkB, MAPK, TLR4, JAK-STAT)	[11,12]
12.	MIR17HG 407975 lncRNA	7	HK1, miR-214-3p, miR-130a-3p, miR-302b-3p, miR-223-3p, miR-194-5p, miR-153-3p, miR-155-5p, miR-130b-3p, miR-301a-3p and miR-302a-3p	Signaling pathway of: Interleukins (IL2, IL3, IL4, IL6, IL7, IL10, IL12, IL13, IL15 IL17, IL20, IL21, IL27, IL35, IL37, ILRSHC), MAPK family (MAPK1, MAPK3, MAPK4, MAPK6), ALK, STAT, JAK-STAT, GHR and Gastrin-CREB via PKC. Activation pathway of: NFkB, MAPK1, MAP2K, MAPK3, MAPKK, STAT STAT5, TLR4, TLR7 and TLR9. Involved in: B cell homeostasis.	Psoriasis DITRA* (NFkB, MAPK, TLR4, JAK-STAT)	[13]
13.	NORAD 647979 lncRNA	7	miR-22-3p, miR-26a-5p, miR-17-5p, miR-20a-5p, miR-93-5p, miR-25-3p, miR-32-5p, miR-30a-5p, miR-92a-3p, miR-26b-5p,	Signaling pathway of: Interleukins (IL1, IL2, IL3, IL4, IL6, IL7, IL10, IL12, IL15, IL13, IL17, IL20, IL21, IL27, IL35, ILRSHC), MAPK family (MAPK, MAPK4,	Psoriasis DITRA* (NFkB, MAPK,	[14]

			FOXD1, RUNX3, PTEN, KLF5, MYCN, RHOA, NRF1, TGFB1 and ZEB1	MAPK6), TLR4, ALK, STAT, JAK-STAT and Gastrin-CREB via PKC. Activation pathway of: NFkB, MAPK, MAP2K MAPK1, MAPK3, p38MAPK, STAT STAT5, TLR4, TLR7, TLR8 and TLR9. Involved in: regulation of mRNA stability.	TLR4, JAK-STAT)	
14.	miR-19a-3p 406979 miRNA	11	MAP3K5, PKNOX1, PRMT5, SIVA1, TLR7, FRZB, IMPDH1, DPYSL2, SMAD4, ZBTB4, NR4A2, HOXA5, TF, MSMO1, VPS4B, TP53INP1, ERBB4, ESR1, ATXN1, SUZ12, AKT1, TNF, KAT2B, PHLPP1, CCND1, NEUROD1, RAB14, TUSC2, TGFB2, SOCS3, BMPR2, ABCA1, ADRB1, PSAP, CUL5, MECP2, SOCS1, MYCN, MEF2D and TLR2	Signaling pathway of: Interleukins (IL4, IL13), MAPK, STAT and JAK-STAT. Activation pathway of: MAPK, p38MAPK and STAT. Involved in: negative regulation of transforming GFBR, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by mRNA destabilization and B cell activation and negative regulation of cellular response to transforming growth factor beta stimulus.	Psoriasis DITRA* (MAPK, JAK-STAT)	[15]
15.	let-7c-5p 406885 miRNA	10	NR4A2, IGF1R, STAT3, MTPN, NUMB, DICER1, IL8, IL10, CASP3, AGO1, CDC25A, TNFRSF10B, TRIB2, PBX2, HSPA4, CEBPB, MYC, GPS1, COPS6, HMGA2, TTGFB1, RICTOR, MTOR, ITGB3, MAP4K3, IL6, IL6R, BCL2L1, TRIM71, COPS8, NRAS and MPL	Signaling pathway of: Interleukins (IL4, IL6, IL7, IL8, IL10, IL12, IL13), MAPK family (MAPK, MAPK1, MAPK3), STAT and JAK-STAT. Activation pathway of: MAPK, MAP2K and STAT. Involved in: miRNA-mediated post-transcriptional gene silencing and miRNA-mediated gene silencing by mRNA destabilization.	Psoriasis DITRA* (MAPK, JAK-STAT)	[16]
16.	let-7g-5p 406890 miRNA	10	CASP3, AGO1, BCL2L1, IGF2BP1, BMI1, FN1, MYC, IL13, CCL2, CCL5, TTGFB1, HMGA2, AKT2, THBS1, TNFRSF10B, COL1A2, CDKN2A, SMAD2, GAB2 and KRAS	Signaling pathway of: Interleukins (IL4, IL13), MAPK family (MAPK4, MAPK6), TGFB, STAT and JAK-STAT. Activation pathway of: MAPK, MAP2K and STAT5. Involved in: miRNA-mediated post-transcriptional gene silencing and negative regulation of inflammatory response.	Psoriasis DITRA* (MAPK, JAK-STAT)	[17]
17.	miR-106a-5p 406899 miRNA	10	RBL2, HMGA2, E2F1, RUNX3, APC, HIPK3, SLC2A3, RUNX1, ULK1, RB1, CDX2, PTEN, HIF1A, ERCC1, BCL10, CASP7, TTGFB2, FAS, CDKN1A, MYLIP, CXCL8, IL10, CYP19A1, CCND1, MFN2,	Signaling pathway of: Interleukins (IL4, IL10, IL13), MAPK, ALK, TGFB, STAT and JAK-STAT. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition	Psoriasis DITRA* (MAPK, JAK-STAT)	[18]

			ATG7, VEGFA, APP, BMP2, SIRPA, ARID4B, RND3 and ATM	of translation and miRNA-mediated gene silencing by mRNA destabilization.		
18.	miR-122-5p 406906 miRNA	10	PRKRA, FUT8, CREB1, NOD2, ALDOA, EGLN3, NCAM1, XPO6, BAX, EGFR, SLC7A1, ZNF395, RAB6B, SPRY2, DSTYK, G6PC3, GYS1, TRIB1, BCL2L2, PRKAB1, MECP2, PDK4, FOXP1, NUMBL, CLIC4, RAB11FIP1, FUNDC2, ANXA11, HMOX1, ADAM10, AP3M2, RAC1, DUSP2, NFATC2IP, CDK4, FAM117B and PTPN1	Signaling pathway of: Interleukins (IL4, IL13, IL17), MAPK, TLR4 and Gastrin-CREB. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing.	Psoriasis R. Arthritis A. Dermatitis DITRA* (MAPK, TLR4)	[19,20]
19.	miR-17-5p 406952 miRNA	10	PPP2R2A, TRIM8, TNF, TIMP2, CCND1, DNMT1, NTN4, RBL1, SMAD4, VDUP1, VEGFA, STAT3, ZBTB4, NEUROG1, CDKN1A, RBL2, PKD2, MMP2, SIRPA, APP, JAK1, GPR137B, ADAR, NEUROD1, CLOCK, ETV1, EPHA4, BCL2, ABCA1, RUNX1, CRIM1, KAT2B, MFN2, RND3, MAP3K12, HSPB2, WEE1, CCL1, NPTX1, TLR7, PIK3R1 and DNAJC27.	Signaling pathway of: Interleukins (IL2, IL4, IL6, IL7, IL10, IL13, IL15, IL21, IL27, IL35), MAPK, ANK, TGFB, and JAK-STAT. Activation pathway of: MAPK. Involved in: cysteine-type endopeptidase activity involved in apoptotic process, cellular senescence, intrinsic apoptotic signaling pathway, mitochondrial membrane permeability involved in apoptotic process, hydrogen peroxide-mediated programmed cell death, phagocytosis, cytokine production involved in inflammatory response, hydrogen peroxide-mediated programmed cell death, connective tissue replacement involved in inflammatory response wound healing, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation and cellular response to lipopolysaccharide and cellular response to hypoxia.	Psoriasis DITRA* (MAPK, JAK-STAT)	[21]
20.	miR-30e-5p 407034 miRNA	10	MBNL2, MTTP, TUSC3, GNAI2, TP53, ADRB2, BMI1, HELZ, P4HA1, BNIP3L, PLCG1, ATG5, MBNL1, NOTCH1, MYBL2, NFKBIA, CASP3, ADRB1, MBNL3, UBE2I and SNAI1	Involved in: miRNA-mediated post-transcriptional gene silencing and regulation of adenylate cyclase-inhibiting adrenergic receptor signaling pathway.	Psoriasis	[21]

21.	miR-373-3p 442918 miRNA	10	BTG1, RASSF1, DKK1, MBD2, MTOR, SIRT1, RAD23B, TXNIP, RABEP1, PIK3CA, VEGFA, JAK1, XPA, NFIB, CD44, LATS2, RAD52, RECK, TGFBR2, CXCR4, MYC, TNFAIP1, LEFTY2, LEFTY1, IRF9 and MRE11	Signaling pathway of: TGFB and JAK-STAT. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing and miRNA-mediated gene silencing by mRNA destabilization.	DITRA* (MAPK, JAK-STAT)	
22.	miR-454-3p 768216 miRNA	10	CXCL12 and SMAD4	Involved in: miRNA-mediated post-transcriptional gene silencing and negative regulation of MAPK cascade.	Arthritis DITRA* (MAPK)	[22]
23.	let-7i-5p 406891 miRNA	9	CXCL8, ASCL1, CD86, NEUROG1, TLR4, HMGB1, IL13, IGF1, AURKB, IL2, BMP4, GPS1, COPS8, SOCS1, COPS6 and AGO1	Signaling pathway of: Interleukins (IL4, IL10, IL13), MAPK, TLR4 and JAK-STAT. Activation pathway of: NFkB, TLR7, TLR8, TLR9 and MAPK. Involved in: negative regulation of gene expression, miRNA-mediated post-transcriptional gene silencing and miRNA-mediated gene silencing by inhibition of translation.	Psoriasis A. Dermatitis DITRA* (MAPK, TLR4, JAK-STAT)	[19,21]
24.	miR-107 406901 miRNA	9	DICER1, SERBP1, LIN28A, CHGA, CDK8, AXIN2, RAB1B, PTEN, JAK1, LATS2, ARNT, NFIA, VEGFA, HMGA2, CYP2C19, CDK6, SNCG, CAV1, BACE1, DAPK1, PLAG1, GRN, RAD51, SALL4, SH3GL2, SUZ12, AIP, CPEB1, AGO1, CDC42, AGO3, FBXW7, HIF1A, IL6, NOTCH2, CHRM1, MYB, NPPA and LRP1	Signaling pathway of: Interleukins (IL4, IL6, IL12, IL13) and MAPK. Activation pathway of: MAPK1 and MAPK3. Involved in: miRNA-mediated post-transcriptional gene silencing and miRNA-mediated gene silencing by inhibition of translation.	Psoriasis DITRA* (MAPK)	[23]
25.	miR-130b-3p 406920 miRNA	9	ABCA1, ERBB2, SAV1, PPARGC1A, NKD2, IRF1, IGF1, LDLR, TP53INP1, RUNX3, DICER1, ZEB1, DLL1, MMP2, UVRAG, MST1, PDGFRA, PPARG, FMR1, CYP2C9, CSF1, CMPK1, STAT3, ZBTB4, CYLD, SNAI3, SMAD4, PPARA, CCNA2, PTEN, ITGB1 and CCDC6	Signaling pathway of: Interleukins (IL4, IL13), STAT and JAK-STAT. Activation pathway of: MAPK. Involved in: inflammatory response, negative regulation of macrophage derived foam cell differentiation, negative regulation of monooxygenase activity, miRNA-mediated post-transcriptional gene	Psoriasis A. Dermatitis DITRA* (MAPK, JAK-STAT)	[19]

				silencing and miRNA-mediated gene silencing by mRNA destabilization.		
26.	miR-20a-5p 406982 miRNA	9	TTGFB2, TBC1D2, MEF2D, MAP3K5, NFKBIB, RGS5, REST, NRAS, SIRPA, NBEA, MAP3K12, ATG16L1, PTEN, LDLR, DUSP2, PPP2R2A, PKD1, NEUROG1, GJA1, E2F3, TCEAL1, PRKG1, PPARG, OSM, CCL1, EPHA4, MYC, RB1CC1, RBL1, IRF2, NPTX1, PURA, APP, BCL2, VEGFA, KIT, CCND2, ETV1, ARHGAP12, RB1, WEE1, BNIP2, RUNX1 and EGLN3	Signaling pathway of: Interleukins (IL4, IL13), MAPK, ALK, BMP and JAK-STAT. Activation pathway of: NFkB, TLR4, TLR7, TLR8, TLR9 and MAPK. Involved in: negative regulation of cytokine-mediated signaling pathway, inflammatory response, negative regulation of gene expression, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, miRNA-mediated gene silencing by mRNA destabilization, cellular response to hypoxia, negative regulation of protein serine/threonine kinase activity and negative regulation of p38MAPK cascade.	Psoriasis DITRA* (NFkB, MAPK, JAK-STAT)	[24]
27.	miR-590-3p 693175 miRNA	9	CREB5, TGFB1, MACC1, RECK, SMAD3, ATF3, TGFB1, RB1, APC, SMAD7, NFKB1, FOSL2, ZEB1, ZEB2, OLR1, S100A10, BTG2, ILF3, LPL, ZNF143, EEF1E1, CHL1 and TGFB2	Activation pathway of: NFkB, MAPK1, MAPK3 Involved in: positive regulation of cell population proliferation, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, positive regulation of cell cycle and negative regulation of inflammatory response	Psoriasis DITRA* (NFkB, MAPK)	[25]
28.	miR-93-5p 407050 miRNA	9	TBC1D2, SLC2A4, ANG, F3, RAB11FIP1, ZBTB4, PTENP1, VEGFA, PURA, ZNRF3, FOXA1, ABCA1, PTEN, TP53INP1, TGFB2, RYR2, LDLR, MAPK9, MMP3, LATS2, RPS6KA4, CERS2, TUSC2, SMAD7, FOXO3, STK11, E2F1, CDKN1A, KAT2B, ITGB8, RHOC, ATG16L1, PHLPP2 and CXCL8	Signaling pathway of: Interleukins (IL4, IL13), BMP and TGFB. Activation pathway of: MAPK Involved in: negative regulation of cytokine production, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by mRNA destabilization, negative regulation of cytokine production involved in inflammatory response and negative regulation of voltage-gated calcium channel activity.	Psoriasis DITRA* (MAPK)	[26]

29.	let-7a-5p 406881 miRNA	8	E2F1, E2F2, MAP4K4, PRDM1, RAB40C, IGF2BP1, NR1I2, EGFR, APP, CASP8, IL6, PAK1, EZH2, HMGA2, DICER1, HMGA1, CDC34, KRAS, MYC, FOXA1, PKM, TGFBR3, WNT1, CCND2, HRAS, TMED7, RAVR2, CDKN1A, CASP3, AGO4, LIN28B, AURKB, IGF2, LIN28A, MPL, CDK6, UHRF2 and HAS2	Signaling pathway of: Interleukins (IL4, IL6, IL13), MAPK family (MAPK4, MAPK6), TLR4, ALK, STAT, TGFB, JAK-STAT, and Gastrin-CREB via PKC. Activation pathway of: NFkB, MAP2K and MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation and miRNA-mediated gene silencing by mRNA destabilization.	Psoriasis A. Dermatitis DITRA* (NFkB, TLR4, MAPK)	[17,27]
30.	let-7b-5p 406884 miRNA	8	CDK6, AGO1, CPEB1, CDC34, HRAS, NR2E1, CCND1, IGF1R, TGFBR1, CTHRC1, RPIA, CASP3, ACTG1, AKT2, IRS2, E2F2, LIN28B, CCNA2, HMGA2, CDC25A, IGF2BP2, RDH10, CYP2J2, PRDM1, LGR4, TNFRSF10B, IL6, NRAS, MTPN, IFNB1, LIN28A, TLR4, EZH2, HMGA1, ANAPC1, CPEB3 and CCND2	Signaling pathway of: MAPK family (MAPK1, MAPK3), TGFB, JAK-STAT and Gastrin-CREB via PKC. Activation pathway of: MAPK. Involved in: negative regulation of autophagy, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by mRNA destabilization, negative regulation of cysteine-type endopeptidase activity involved in apoptotic process, positive regulation of ERK1 and ERK2 cascade, antibacterial innate immune response and negative regulation of hydrogen peroxide-mediated programmed cell death	Psoriasis DITRA* (NFkB, TLR4, MAPK)	[28]
31.	let-7d-5p 406886 miRNA	8	APP, TNFRSF10B, IL13, AGO1, SLC11A2, CRYGEP, MPL, COL3A1, DICER1 and HMGA2	Involved in: miRNA-mediated post-transcriptional gene silencing.	Psoriasis	[21]
32.	let-7e-5p 406887 miRNA	8	IGF1, IGF1R, LIN28A, AGO1, TNFRSF10B, AURKB, MMP9, PLK1, TNFAIP3, HMGA2, WNT1, GPS1, COPS6, COPS8, MYCN, MPL, CCND1, SMC1A, EIF3J, ARID3A, EZH2 and FASLG	Signaling pathway of: Interleukins (IL4, IL13), STAT and MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by mRNA destabilization.	Psoriasis DITRA* (MAPK)	[21]
33.	let-7f-5p 406889 miRNA	8	IL23R, IL13, IL6, CCL7, CCND1, MPL, DYRK2, IRS2, IGF1R, AGO1, PRDM1, CYP19A1, KLK10, MYH9, KLK6, POSTN, GPS1, ELF4, INSR, SOCS3, COPS6 and COPS8	Signaling pathway of: Interleukins (IL4, IL6, IL13, IL17), TGFB, TOR, STAT and JAK-STAT. Involved in: miRNA-mediated post-transcriptional gene silencing, negative regulation of apoptotic process,	Psoriasis DITRA* (JAK-STAT)	[19]

				negative regulation of phosphatidylinositol 3-kinase/protein kinase B signal transduction		
34.	miR-101-3p 406893 miRNA	8	CDK8, CTNNB1, SUZ12, SRF, PRDM1, PIK3CB, MTOR, SNHG1, ZEB2, ATG4D, FBN2, PRKDC, ATM, NOTCH1, SOX9, EYA1, KLF6, PTGS2, RANBP9, STMN1, ATXN1, CDH5, MITF, CFTR, GRSF1, MET, VHL, ITGA3, PIM1, MCL1, ARID1A, FOS, MYCN, EZH2, RHOA, ATP5F1B, CUL3, VEGFC, RAB5A, EED, CPEB1, MEIS1, APP, FMR1 and NLK	Signaling pathway of: Interleukins (IL1, IL4, IL13), MAPK family (MAPK, MAPK1, MAPK3), TLR4, TGFB, STAT and JAK-STAT. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, protein stabilization, negative regulation of SMAD protein signal transduction, negative regulation of necroptotic process and negative regulation of chemokine-mediated signaling pathway.	Psoriasis DITRA* (MAPK, TLR4, JAK-STAT)	[29]
35.	miR-106b-5p 406900 miRNA	8	TNFSF11, CRIM1, NIBAN1, MAPK9, EPHA4, SETD2, PURA, E2F5, ATG16L1, WEE1, CASP8, FYN, STAT3, TRIM8, RUNX3, RB1, RBL2, RBL1, APP, TCEAL1, CCND1, PKD2, CXCL8, CDKN1A, JAK1, ZBTB4, APC, RHOC, TNFRSF10A, NTN4, HIF1A, MMP2, PRRX1, CCND2, EOMES, E2F3, PTEN, CASP7, ITCH	Signaling pathway of: Interleukins (IL4, IL6, IL8, IL13, IL15, IL20, IL21, IL27 IL35), ALK TLR4, STAT and JAK-STAT. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, miRNA-mediated gene silencing by mRNA destabilization and negative regulation of peptidyl-tyrosine phosphorylation.	Psoriasis DITRA* (MAPK, TLR4, JAK-STAT)	[21]
36.	miR-124-3p 406909 miRNA	8	SIRT1, IL6R, HNRNPA2B1, RAC1, SLC16A1, AHR, MTDH, ROCK2, CAPNS1, CD274, ITGB3, NR3C2, REST, NFKBIZ, BACE1, AKT2, PEA15, KLF6, CTDSP1, CCL2, GRIA3, ROCK1, DNMT3B, MECP2, CAV1, RGS4, FXN, NFATC1, CCN2, CAMTA1, E2F6, RDH10, EZH2, AR, B4GALT1, XRCC6, HMGA1, CEBPA, LAMC1 and CDK2	Signaling pathway of: Interleukins (IL2, IL3, IL4, IL6, IL13, IL15), ALK, MAPK and JAK-STAT Activation pathway of: MAPK Involved in: miRNA-mediated post-transcriptional gene silencing	Psoriasis DITRA* (MAPK, JAK-STAT)	[30]
37.	miR-181d-5p 574457 miRNA	8	HRAS, DUSP10, MGMT, MALT1, MEG3, IL1B, RAP1B, BCL2 and CCR1	Signaling pathway of: Interleukins (IL1B, IL4, IL10, IL12, IL13), MAPK family (MAPK1, MAPK3), JAK-STAT and Gastrin-CREB via PKC.	Psoriasis DITRA* (MAPK,	[31]

				Activation pathway of: MAPK and MAP2K. Involved in: positive regulation of cell migration, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, miRNA-mediated gene silencing by mRNA destabilization and positive regulation of p38MAPK cascade.	JAK-STAT)	
38.	miR-26b-5p 407017 miRNA	8	PTEN, ESR1, SMAD1, EZH2, FH, ULK2, S100A7, TRAF5, USP9X, MIEN1, KPNA2, TAB1, CCN2, GATA4, ST8SIA4, PLOD2, MT-CO2, IGF1R, JAG1, IGF1, CHORDC1, NAMPT, HGF, ARL4C, LARP1, NR2C2, RB1, TLR4, CDK6, ABCA1, EPHA2, PTGS2, COL1A2, CCNE1, PDE4A and HAS2	Signaling pathway of: MAPK. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, miRNA-mediated gene silencing by mRNA destabilization, positive regulation of cell cycle, negative regulation of SMAD protein signal transduction, positive regulation of protein serine/threonine kinase activity, positive regulation of tau-protein kinase activity, positive regulation of apoptotic signaling pathway.	Psoriasis DITRA* (MAPK)	[32]
39.	miR-34a-5p 407040 miRNA	8	BMP7, NANOG, ATG4D, MAP2K1, IMPA1, HMGB1, GRM7, IMPDH2, PCBP2, SPI1, KCNH1, CXCL11, AR, CCL22, SIRT1, ATG4A, KIT, AGTR1, MAP3K9, ANK3, CACNB3, CD44, CXCL16, TREM2, ACSL1, CEBPB, FOSL1, ERBB2, ULBP2, ARHGDIB, ATG4B, PIK3CG, YY1, RAD51, CDC25A, KCNH2, RICTOR, ZAP70, GDF5, AIP, ATG7, E2F1, ACSL4, SYT1, MAGEA3 and CXCL10	Signaling pathway of: Interleukins (IL4, IL13), MAPK family (MAPK1, MAPK3, STAT and JAK-STAT). Activation pathway of: MAPK1 and MAPK3. Involved in: positive regulation of gene expression, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, miRNA-mediated gene silencing by mRNA destabilization, positive regulation of cell cycle, negative regulation of peroxisome proliferator activated receptor signaling pathway, response to axon injury, negative regulation of B cell receptor signaling pathway, negative regulation of phosphatidylinositol 3-kinase/protein kinase B signal transduction and positive regulation of protein acetylation,	R. Arthritis DITRA* (MAPK, JAK-STAT)	[33,34]
40.	miR-449a 554213	8	E2F3, CAPN6, SIRT1, XIST, LEF1, POU2F1, IL6R, HNF4A, MFAP4, MET, RRAS, FOS,	Signaling pathway of: Interleukins (IL4, IL13), MAPK family (MAPK1, MAPK3) STAT and JAK-STAT.	Psoriasis DITRA*	[35]

	miRNA		CDK6, CDK4, ADAM10, CCNE2, CCND1, HDAC8, MAZ, CREB5, MYC, FLOT2, ITPR1, CRIP2, PKP4, GMNN, HDAC1, CCN5, NOTCH1, BCL2, CDC25A and TSEN15	Activation pathway of: MAPK1 and MAPK3 Involved in: negative regulation of cell population proliferation, negative regulation of gene expression, negative regulation of cell migration, miRNA-mediated post-transcriptional gene silencing and positive regulation of apoptotic signaling pathway.	(MAPK, JAK-STAT)	
41.	miR-130a-3p 406919 miRNA	7	RAB5A, NEUROD1, NPTX1, HOXA10, PDGFRA, MAFB, ESR1, TAC1, ATXN1, PPARGC1A, MYC, MECP2, RUNX3, TNF, CSF1, NRP1, SMAD4, APP, ATG2B, DICER1, PTEN, TGFB1, GJA1, NBEA, SLAIN1, MEOX2, IL18, HOXA5, PPARG, TGFB2, KLF4, XIAP and MAP3K12	Signaling pathway of: Interleukins (IL4, IL10, IL13), MAPK, STAT and JAK-STAT. Activation pathway of: MAPK Involved in: positive regulation of natural killer cell activation, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by mRNA destabilization, negative regulation of macrophage activation and cellular response to transforming growth factor beta stimulus.	Psoriasis DITRA* (MAPK, JAK-STAT)	[21]
42.	miR-186-5p 406962 miRNA	7	SETD2, MAP3K2, PTTG1, FGF2, MAPT, GJA1, ABCB1, CSNK2A1, NCSTN, TWIST1, HIF1A, FOXO1, XIAP, PPM1B, RELA, VEGFA, P2RX7, PAK5, CASP10, AKAP12 and PVT1	Signaling pathway of: Interleukins (IL4, IL13) and MAPK. Activation pathway of: MAPK. Involved in: miRNA-mediated post-transcriptional gene silencing.	Psoriasis R. Arthritis DITRA* (MAPK, JAK-STAT)	[36,37]
43.	miR-301a-3p 407027 miRNA	7	SNIP1, MAP3K5, CDC14A, MEOX2, NDRG2, RUNX3, UVRAG, PTEN, NKRF, TIMP2, BTG1, SERPINE1, BCL2L11, CDKN1A and SMAD4	Involved in: miRNA-mediated post-transcriptional gene silencing.	Psoriasis	[38]
44.	miR-301b-3p 100126318 miRNA	7	ABCA1, PTEN, TP63, NDRG2, LDLR, BCL2L11 and NR3C2	Involved in: miRNA-mediated post-transcriptional gene silencing, lipoprotein transport and negative regulation of cholesterol efflux.	N/A	
45.	miR-495-3p 574453 miRNA	7	ATP7A, SMR3B, ABCB1, RUNX3, SOX9, AKT1, PBX3, VEZF1, MTA3, FOXC1, PTP4A3, MEIS1, MAT1A, BMI1, HSPA5, CCL2, TBC1D9 and HMGA2	Involved in: negative regulation of transporter activity, miRNA-mediated post-transcriptional gene silencing, miRNA-mediated gene silencing by inhibition of translation, miRNA-mediated gene silencing by mRNA	R. Arthritis	[39]

			destabilization, negative regulation of endothelial cell differentiation, negative regulation of cell migration involved in sprouting angiogenesis, positive regulation of G1/S transition of mitotic cell cycle, negative regulation of artery morphogenesis, negative regulation of endothelial cell apoptotic process.		
* Proposed targets that may relate with DITRA based on the Signaling and Activation Pathway					
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