

Table 1: Important features for Psoriasis found by the classifiers. To evaluate if each feature was related to the disease we performed a manual research of the literature (searching for “[gene name] AND Psoriasis” on PubMed – <https://pubmed.ncbi.nlm.nih.gov>).

Probe ID	Gene Symbol	Description	Dataset (classifiers)	Related
207356_at	DEFB4A/B	Defensin beta 4A Defensin beta 4B	PSO1+PSO2 (RAC, RAC-RFE, SVM, SVM-RFE, XGB, XGB-RFE) PSO1 (SVM, SVM-RFE) PSO2 (RAC, RAC-RFE, SVM, SVM-RFE)	Yes [1, 2]
41469_at	PI3	Peptidase inhibitor 3	PSO1+PSO2 (SVM, SVM-RFE, RF-RFE) PSO2 (RAC, RAC-RFE, SVM, SVM-RFE, RF)	Yes [1, 2]
203691_at	PI3	Peptidase inhibitor 3	PSO1+PSO2 (SVM, SVM-RFE) PSO2 (RAC, RAC-RFE, SVM, SVM-RFE, RF)	Yes [1, 2]
211906_s_at	SERPINB4	Serpin family B member 4	PSO1+PSO2 (SVM, SVM-RFE, XGB, XGB-RFE) PSO2 (SVM, SVM-RFE)	Yes [1, 2]
232170_at	S100A7A	S100 calcium binding protein A7A	PSO1+PSO2 (SVM, SVM-RFE, RF) PSO2 (SVM, SVM-RFE)	Yes [1]
205916_at	S100A7	S100 calcium binding protein A7	PSO1 (SVM)	Yes [1, 2]
203535_at	S100A9	S100 calcium binding protein A9	PSO1 (SVM) PSO2 (RF-RFE)	Yes [1, 2]
205863_at	S100A12	S100 calcium binding protein A12	PSO1 (RAC-RFE)	Yes [1, 2]
206561_s_at	AKR1B10	Aldo-keto reductase family 1 member B10	PSO2 (RAC, RF)	Yes [1, 2]
224328_s_at	LCE3D	Late cornified envelope 3D	PSO1+PSO2 (RAC, RAC-RFE) PSO1 (SVM)	Yes [1]
227735_at	GPR15LG	G protein-coupled receptor 15 ligand	PSO1+PSO2 (RAC, RAC-RFE) PSO2 (RF)	Yes [3]
227736_at	GPR15LG	G protein-coupled receptor 15 ligand	PSO1+PSO2 (RAC, RAC-RFE)	Yes [3]
201464_x_at	JUN	Jun proto-oncogene, AP-1 transcription factor subunit	PSO1+PSO2 (XGB, XGB-RFE) PSO1 (XGB, XGB-RFE)	Yes [4]
213281_at	JUN	Jun proto-oncogene, AP-1 transcription factor subunit	PSO1 (RF)	Yes [4]
220322_at	IL36G	Interleukin 36 gamma	PSO1+PSO2 (RAC, RAC-RFE)	Yes [1]
221470_s_at	IL37	Interleukin 37	PSO2 (RAC, RAC-RFE)	Yes [5]
222223_s_at	IL36RN	Interleukin 36 receptor antagonist	PSO2 (RF)	Yes [6]
203779_s_at	MPZL2	Myelin protein zero like	PSO1+PSO2 (RF) PSO2 (RF-RFE)	Yes [2]
211075_s_at	CD47	CD47 molecule	PSO2 (RF)	Yes [7]
213857_s_at	CD47	CD47 molecule	PSO2 (RF)	Yes [7]
212463_at	CD59	CD59 molecule (CD59 blood group)	PSO1 (RF-RFE)	Yes [8]
227458_at	CD274	CD274 molecule	PSO1+PSO2 (RF)	Yes [9]
202988_s_at	RGS1	Regulator of G protein signaling 1	PSO1+PSO2 (RF)	Yes [2]
216834_at	RGS1	Regulator of G protein signaling 1	PSO1 (SVM-RFE)	Yes [2]
212295_s_at	SLC7A1	Solute carrier family 7 member 1	PSO1+PSO2 (RF)	Yes [10]

206628_at	SLC5A1	Solute carrier family 5 member 1	PSO2 (RF)	Yes [2]
209800_at	KRT16	Keratin 16	PSO1+PSO2 (RF-RFE)	Yes [1, 2]
237120_at	KRT77	Keratin 77	PSO2 (RAC, RAC-RFE)	Yes [1]
214580_x_at	KRT6A/B/C	Keratin 6A Keratin 6B Keratin 6C	PSO2 (RF)	Yes [1]
202345_s_at	FABP5	Fatty acid binding protein 5	PSO1+PSO2 (RF-RFE)	Yes [1]
239430_at	IGFL1	IGF like family member 1	PSO1 (RAC, RAC-RFE)	Yes [11]
204595_s_at	STC1	Stanniocalcin 1	PSO1 (RAC-RFE)	Yes [12]
204597_x_at	STC1	Stanniocalcin 1	PSO1 (RAC, RAC-RFE)	Yes [12]
205660_at	OASL	2'-5'-oligoadenylate synthetase like	PSO1 (RAC, RAC-RFE)	Yes [13]
1554420_at	ATF3	Activating transcription factor 3	PSO1 (RAC)	Yes [14]
211788_s_at	TREX2	Three prime repair exonuclease 2	PSO1 (RAC)	Yes [15]
203290_at	HLA-DQA1	Major histocompatibility complex, class II, DQ alpha 1	PSO1 (SVM-RFE)	Yes [16]
205018_s_at	MBNL2	Muscleblind like splicing regulator 2	PSO1 (SVM)	Yes [17]
229545_at	FERMT1	FERM domain containing kindlin 1	PSO1 (RF-RFE)	Yes [18]
200861_at	CNOT1	CCR4-NOT transcription complex subunit 1	PSO1 (RF)	Yes [19]
33304_at	ISG20	Interferon stimulated exonuclease gene 20	PSO2 (RF)	Yes [2]
207386_at	CYP7B1	Cytochrome P450 family 7 subfamily B member 1	PSO2 (RF)	Yes [20]
202712_s_at	CKMT1A/B	Creatine kinase, mitochondrial 1A Creatine kinase, mitochondrial 1B	PSO2 (RF-RFE)	Yes [21]
218120_s_at	HMOX2	Heme oxygenase 2	PSO2 (RF-RFE)	Yes [22]
206553_at	OAS2	2'-5'-oligoadenylate synthetase 2	PSO2 (RF)	Yes [2]
221698_s_at	CLEC7A	C-type lectin domain containing 7A	PSO2 (RF)	Yes [23]
213011_s_at	TPI1	Triosephosphate isomerase 1	PSO2 (RF)	Yes [24]
205349_at	GNA15	G protein subunit alpha 15	PSO2 (RF)	Yes [2]
219630_at	PDZK1IP1	PDZK1 interacting protein 1	PSO2 (RF)	Yes [25]
1553589_a_at	PDZK1IP1	PDZK1 interacting protein 1	PSO2 (XGB, XGB-RFE)	Yes [25]
208836_at	ATP1B3	ATPase Na <sup>+</sup> /K <sup>+</sup> transporting subunit beta 3	PSO2 (RF)	Yes [21]
215438_x_at	GSPT1	G1 to S phase transition 1	PSO2 (RF)	Yes [26]
225647_s_at	CTSC	Cathepsin C	PSO2 (RF)	Yes [2]
220664_at	SPRR2C	Small proline rich protein 2C (pseudogene)	PSO2 (RF)	Yes [2]
201762_s_at	PSME2	Proteasome activator subunit 2	PSO2 (RF)	Yes [27]
208905_at	CYCS	Cytochrome c, somatic	PSO2 (RF)	Yes [2]
217028_at	CXCR4	C-X-C motif chemokine receptor 4	PSO2 (RF)	Yes [28]
209201_x_at	CXCR4	C-X-C motif chemokine receptor 4	PSO2 (RF)	Yes [28]
203476_at	TPBG	Trophoblast glycoprotein	PSO2 (RF)	Yes [29]
215235_at	SPTAN1	Spectrin alpha, non-erythrocytic 1	PSO2 (RF)	Yes [1]
202503_s_at	PCLAF	PCNA clamp associated factor	PSO1+PSO2 (RF-RFE)	Unknown
202018_s_at	LTF	Lactotransferrin	PSO1+PSO2 (RF-RFE)	Unknown
204364_s_at	REEP1	Receptor accessory protein 1	PSO1+PSO2 (XGB, XGB-RFE)	Unknown

1562650_at	FRYL	FRY like transcription coactivator	PSO1+PSO2 (XGB, XGB-RFE)	Unknown
211430_s_at	IGHV4-31	Immunoglobulin heavy variable 4-31	PSO1 (SVM-RFE)	Unknown
214440_at	NAT1	N-acetyltransferase 1	PSO1 (RF-RFE)	Unknown
207153_s_at	GLMN	Glomulin, FKBP associated protein	PSO1 (RF-RFE)	Unknown
214048_at	MBD4	Methyl-CpG binding domain 4, DNA glycosylase	PSO1 (RF-RFE)	Unknown
224806_at	TRIM25	Tripartite motif containing 25	PSO1 (RF)	Unknown
238496_at	NSD3	Nuclear receptor binding SET domain protein 3	PSO1 (RF)	Unknown
202268_s_at	NAE1	NEDD8 activating enzyme E1 subunit 1	PSO1 (RF)	Unknown
238488_at	LRRC70	Leucine rich repeat containing 70	PSO1 (RF)	Unknown
226329_s_at	MITD1	Microtubule interacting and trafficking domain containing 1	PSO1 (RF)	Unknown
221434_s_at	SLIRP	SRA stem-loop interacting RNA binding protein	PSO1 (XGB, XGB-RFE)	Unknown
1559399_s_at	ZCCHC10	Zinc finger CCHC-type containing 10	PSO1 (XGB, XGB-RFE)	Unknown
1552277_a_at	MSANTD3	Myb/SANT DNA binding domain containing 3	PSO1 (XGB, XGB-RFE)	Unknown
221896_s_at	HIGD1A	Hypoxia inducible domain family member 1A	PSO2 (RF-RFE)	Unknown
219099_at	TIGAR	TP53 induced glycolysis regulatory phosphatase	PSO2 (RF)	Unknown
211725_s_at	BID	BH3 interacting domain death agonist	PSO2 (RF)	Unknown
208815_x_at	HSPA4	Heat shock protein family A (Hsp70) member 4	PSO2 (RF)	Unknown
226825_s_at	TMEM165	Transmembrane protein 165	PSO2 (RF)	Unknown
216641_s_at	LAD1	Ladinin 1	PSO2 (RF)	Unknown
222442_s_at	ARL8B	ADP ribosylation factor like GTPase 8B	PSO2 (RF)	Unknown
201530_x_at	SEN3-EIF4A1	SEN3-EIF4A1 readthrough (NMD candidate)	PSO2 (RF)	Unknown
221903_s_at	CYLD	CYLD lysine 63 deubiquitinase	PSO2 (RF)	Unknown
205774_at	FI2	Coagulation factor XII	PSO2 (RF)	Unknown
219402_s_at	DERL1	Derlin 1	PSO2 (RF)	Unknown
212656_at	TSMF	Ts translation elongation factor, mitochondrial	PSO2 (RF)	Unknown
1569245_at	C8orf74	Chromosome 8 open reading frame 74	PSO2 (XGB-RFE)	Unknown
1569246_a_at	C8orf74	Chromosome 8 open reading frame 74	PSO2 (XGB-RFE)	Unknown
1569250_at	ZNF333	Zinc finger protein 333	PSO2 (XGB-RFE)	Unknown
240399_at	?	-	PSO1 (RF)	-
213598_at	?	-	PSO1 (XGB, XGB-RFE)	-
AFFX-TrpnX-M_at	?	-	PSO2 (XGB-RFE)	-

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