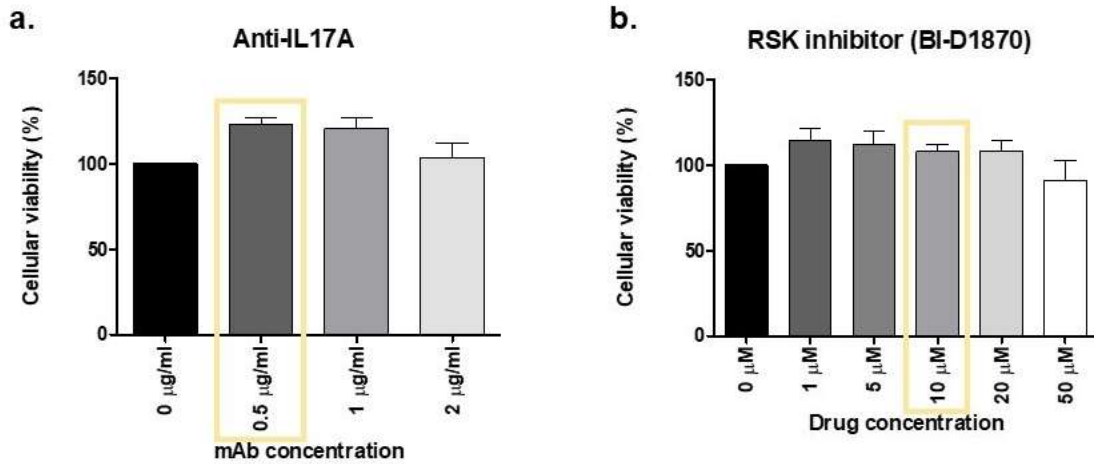


SUPPLEMENTARY MATERIAL

Supplementary Figures



Supplementary Figure S1. MTS assay performed on psoriatic keratinocytes grown as monolayer to test three different doses of neutralizing anti-IL17A (0.5, 1 and 2 µg/ml) (a), and five different doses of ribosomal s6 kinase inhibitor (BI-D1870, 1, 5, 10, 20 and 50 µM) (b).

Supplementary Tables

Supplementary Table S1. Complete list of antibodies used for indirect immunofluorescence, EMSA and Western blot analyses.

Antigens	Biological source	Company	#Cat	#Lot	Dilution
Primary antibodies					
<i>Anti-human PTPRM</i>	Mouse monoclonal	Abcam	Ab233815	GR3241130-4	1:1000 overnight
<i>NELL2</i>	Rabbit monoclonal	Abcam	Ab181376	GR152681-1	1:1000
<i>p-ERK1/2</i>	Rabbit polyclonal	Cell Signaling Technology	9101S	31	1:1000
<i>ERK1/2</i>	Rabbit polyclonal	Cell Signaling Technology	9102S	27	1:1000
<i>Anti-β actin</i>	Mouse monoclonal IgG1	Abcam	A5441	I22M4782	1:30000
<i>p-NF-κB</i>	Mouse monoclonal	Santa Cruz Biotechnology	Sc136548	L3021	1:100
<i>NF-κB</i>	Mouse monoclonal	Santa Cruz Biotechnology	Sc8008	D1122	1:500
<i>p-Sp1</i>	Rabbit polyclonal	Abcam	Ab227383	GR3324683-13	1:500
<i>Sp1</i>	Rabbit polyclonal	Abcam	Ab59257	GR3404039-4	1:500
<i>Anti-human Ki-67</i>	Mouse monoclonal IgG ₁ ,κ	BD biosciences	556003	8239549	1:400
Secondary antibodies					
<i>Anti-mouse Alexa Fluor 488</i>	Goat polyclonal IgG	Life	A11001	1890503	1:1500
<i>Anti-rabbit HRP</i>	Goat polyclonal IgG (H+L)	Jackson ImmunoResearch Laboratories Inc	111-035-003	I46270	1:60000
<i>Anti-mouse HRP</i>	Goat polyclonal IgG	Jackson ImmunoResearch Laboratories Inc	115-035-003	I46501	1:60000

Supplementary Table S2. Oligonucleotides used as labeled probes or competitors in the EMSAs.

Oligonucleotide	Top strand (5'-3')
	Bottom strand (5'-3')
Sp1	GATCATATCTGCGGGGCGGGGCAGACACAG
	GATCCTGTGTCTGCCCCGCCCCGCAGATAT
NFKB	GATCAGTTGAGGGGACTTTCCCAGGC
	GATCGCCTGGGAAAGTCCCCTCAACT
NFI	TTATTTTGGATTGAAGCCAATATGAG
	CTCATATTGGCTTCAATCCAAAATAA

Supplementary Table S3. Comparison between published microarray and RNA-seq datasets with 60 deregulated genes of our study.

Gene symbol	Gene name	Gudjonsson et al. [31]	Li et al. [32]	Pasquali et al. [3]	Our study	Our study
		L vs H FC	L vs H FC	PK vs HK FC	PS ⁺ T vs HS ⁺ T FC	PS ⁺ T vs HS ⁺ T FC
KRT16	Keratin, type I cytoskeletal 16	16.980	6.22	7.36	1.242	1.573
DEFB4A	Defensin Beta 4A	196.997	19913.19	32.82	0.826	6.538
KYNU	Kynureninase	25.465	23.37	20.43	1.099	1.652
C10orf99	Putative uncharacterized protein C10orf99	41.394	47.31	13.86	2.764	2.85
SERPINA12	Serpin A12	0.242	0.15	0.05	1.025	0.877
SERPINA3	Alpha-1-antichymotrypsin; Serpin peptidase inhibitor, member 3	2.222	2.27		1.217	2.443
SERPINB9	Serpin B9	2.098	2.50		1.394	2.784
CXCL11	C-X-C motif chemokine 11	2.097	6.10		0.273	2.208
CXCL10	C-X-C motif chemokine 10	7.053	11.54	2.20	0.304	2.880
AQP9	Aquaporin-9	0.306	0.13	0.15	0.314	0.288
IL17RD	Interleukin 17 receptor D	0.494	0.46		0.692	0.710
IL17D	Interleukin 17D	0.488	0.40		0.860	0.803
LCE1B	Late cornified envelope protein 1B	0.595	0.45	0.13	0.874	1.199
CXCL9	C-X-C motif chemokine 9	6.056	9.35		0.179	8.855
MMP1	Matrix metalloproteinase 1	3.270	20.19		1.902	6.531
AKR1B10	Aldo-keto reductase family 1 member B10	57.643	78.20	22.94	2.439	2.225
FLG2	Filaggrin-2	0.349	0.14	0.07	0.937	0.463
UNC93A	Protein unc-93 homolog A	2.710	2.64		1.539	0.791
LEPR	Leptin receptor	0.301	0.24		1.037	0.870
LTB4R	Leukotriene B4 receptor	2.268	2.82	2.83	1.523	1.722
CCL27	C-C motif chemokine 27	0.129	0.08	0.24	0.330	0.299
HOXA10	Homeobox A10	0.409	0.46		0.810	0.685
SPRR2G	Small proline-rich protein 2G	8.063	28.47		0.597	0.610
SPRR4	Small proline-rich protein 4	0.373	0.12	0.12	0.307	0.303
LDLR	Low density lipoprotein receptor	2.393	2.26	2.33	1.025	1.441
TNS1	Tensin 1	0.488	0.45		0.599	0.600
HMGCS2	Hydroxymethylglutaryl-CoA synthase, mitochondrial	0.444	0.14	0.38	0.870	0.830
POSTN	Periostin	0.385	0.34	0.05	1.408	1.814
TGFBR3	Transforming growth factor beta receptor 3	0.439	0.41	0.66	0.847	0.754
WISP2	WNT1-inducible-signaling pathway protein 2, WISP2 protein	0.463	0.27		1.536	1.386
CDH3	Cadherin 3	3.539	3.12	2.25	1.462	1.753
EDIL3	EGF-like repeat and discoidin I-like domain-containing protein 3	0.465	0.28	0.28	0.889	0.823
AIM2	Absent in melanoma 2	2.269	6.41		0.439	1.495
CYP2C18	Cytochrome P450 2C18	2.148	1.83		0.580	0.739
ARG1	Arginase-1	3.665	5.39		1.541	1.839
GJB2	Gap junction beta-2 protein	7.311	18.82	9.32	1.648	2.384
CXCR4	C-X-C chemokine receptor 4	3.081	3.32	2.17	0.610	1.541
CREB5	CAMP responsive element binding protein 5	0.495	0.49		0.750	0.841
CST6	Cystatin-M	0.343	0.16	0.46	0.716	0.501
HMOX1	Heme oxygenase 1	2.174	2.34		0.779	0.815
CD1A	Cluster of differentiation 1a	0.509	0.40		0.207	0.363
CYP4B1	Cytochrome P450 family 4 subfamily B member 1	0.426	0.25		0.344	0.294
CYP2J2	Cytochrome P450 family 2 subfamily J member 2	0.501	0.25	0.47	0.571	0.665
CD36	Cluster of differentiation 36	2.091	2.53	6.86	2.091	1.866
FABP5	Fatty acid binding protein 5	2.756	10.45	7.52	2.055	1.909
PTPRM	Receptor-type tyrosine-protein phosphatase mu		0.60	0.41	0.408	0.327
NR2F2	Nuclear receptor subfamily 2 group f member 2		0.56		0.200	0.259
MCHR1	Melanin concentrating hormone receptor 1		1.67		3.053	2.989
CCL3	C-C motif chemokine 3		9.21		0.835	1.710
ELL2	Elongation factor for RNA polymerase II		1.72	1.53	2.142	2.723
IL1R2	Interleukin 1 receptor type 2		0.77		0.231	0.502
IL1A	Interleukin 1 alpha		0.70		0.440	0.592
IL12RB2	Interleukin 12 receptor subunit beta 2		3.66	2.15	1.369	1.550
IL18	Interleukin 18		0.61		0.501	0.471
CAMP	Cathelicidin antimicrobial peptide		7.70		1.902	2.822
FABP6	Fatty acid binding protein 6		1.96		3.677	3.229
CCR10	C-C chemokine receptor 10		0.43		0.338	0.487
POU2AF1	POU class 2 homeobox associating factor 1		1.23		4.451	4.262
KRT31	Keratin 31		0.27	0.37	0.130	0.253
TRPS1	Transcriptional Repressor GATA binding 1		0.89	1.50	2.152	4.122

Genes whose fold change are indicated in black are similarly deregulated (either repressed or activated) whereas those in red are regulated in opposite ways between our study and those of Gudjonsson et al. [31], Li et al. [32] or Pasquali et al. [3]. L: lesional psoriatic skin; H: healthy skin; PK: psoriatic keratinocyte; HK: healthy keratinocytes. PS: psoriatic skin substitutes; HS: healthy skin substitutes; T: T cells; FC: fold change.