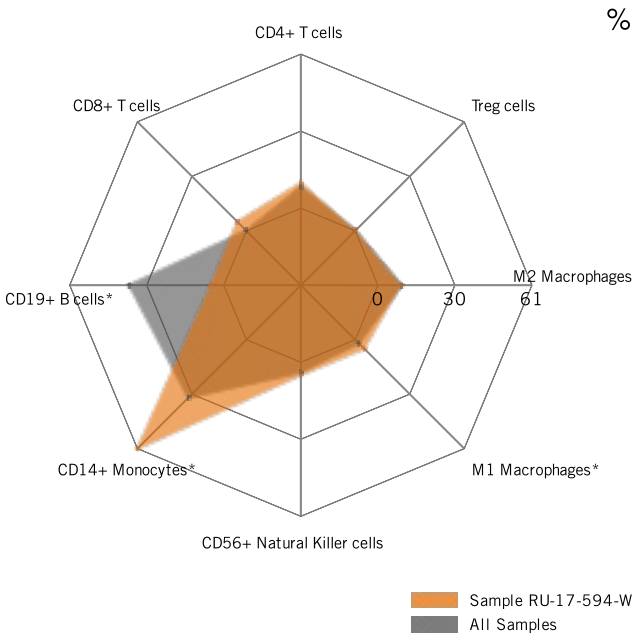
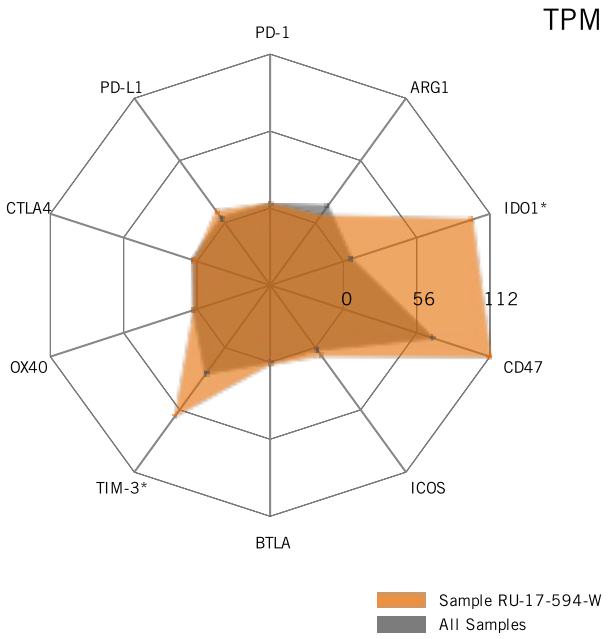
SAMPLE ID: RU-17-594-W

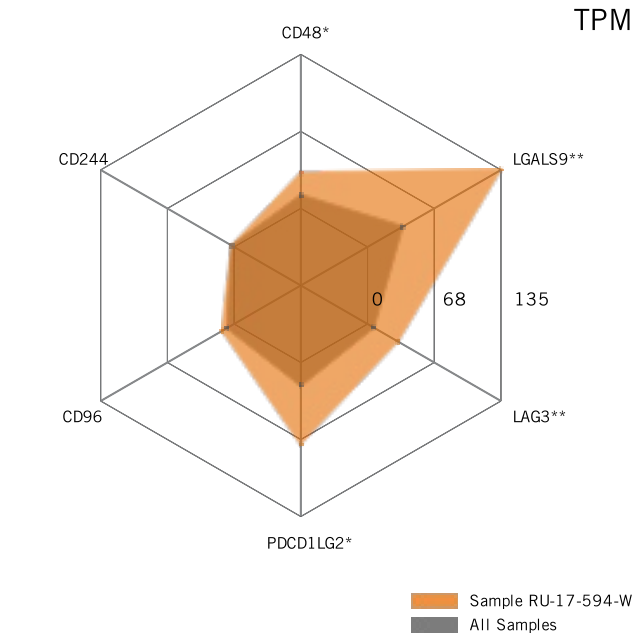
Immune Health Expression Models



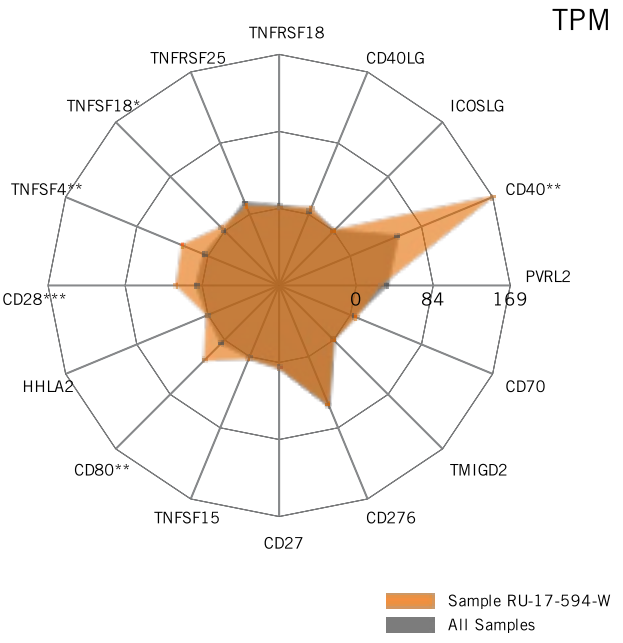
Immune Escape Genes



Co-inhibitory Molecules



Co-stimulatory Molecules



SIGNIFICANCE KEY: Z-SCORE
*: | z | > 1, **: | z | > 2, ***: | z | > 3

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COFACTOR genomics

IMMUNOPRISM INDIVIDUAL IMMUNE REPORT

RESEARCH USE ONLY
Version 3.0

Project ID: FH0001SP
Issued: 2019-10-29

IMMUNE HEALTH EXPRESSION MODELS

Cell Name	% for Sample	Median % for All Samples	z-score
CD4+ T cells	10.0	8.4	-0.0194
CD8+ T cells	5.0	0.0	0.3663
CD19+ B cells	5.0	37.4	-1.4094
CD14+ Monocytes	61.0	32.4	1.6743
CD56+ Natural Killer cells	5.0	4.0	-0.0803
M1 Macrophages	5.0	2.0	1.2311
M2 Macrophages	9.0	9.4	-0.2466
Treg cells	0.0	0.0	-0.2522

IMMUNE ESCAPE GENES

Gene Name	TPM for Sample	Median TPM for All Samples	z-score
PD-1	3.0	3.0	-0.4306
PD-L1	10.0	4.0	0.4431
CTLA4	2.0	3.0	-0.4715
OX40	2.0	2.0	-0.3662
TIM-3	61.0	23.0	1.4948
BTLA	1.0	0.0	0.0837
ICOS	7.0	2.0	0.4911
CD47	112.0	68.0	0.2823
IDO1	98.0	6.0	1.3478
ARG1	6.0	15.0	-0.4540

CO-INHIBITORY MOLECULES

Gene Name	TPM for Sample	Median TPM for All Samples	z-score
CD48	31.0	11.0	1.3539
CD244	2.0	2.0	-0.3455
CD96	12.0	7.0	-0.0532
PDCD1LG2	72.0	20.0	1.8285
LAG3	31.0	6.0	2.2478
LGALS9	135.0	35.0	2.8292

CO-STIMULATORY MOLECULES

Gene Name	TPM for Sample	Median TPM for All Samples	z-score
TNFRSF18	1.0	2.0	-0.2895
TNFRSF25	9.0	14.0	-0.6141
TNFSF18	5.0	0.0	1.1287
TNFSF4	30.0	4.0	2.2953
CD28	28.0	6.0	3.4642
HHLA2	1.0	0.0	-0.0639
CD80	31.0	5.0	2.6990
TNFSF15	2.0	1.0	0.7565
CD27	6.0	5.0	0.0548
CD276	57.0	58.0	-0.2853
TMIGD2	0.0	0.0	-0.4212
CD70	7.0	4.0	-0.1524
PVRL2	27.0	34.0	-0.4906
CD40	169.0	56.0	2.0439
ICOSLG	0.0	0.0	-0.2374
CD40LG	7.0	3.0	0.3447

STATEMENT OF PERFORMANCE

The ImmunoPrism assay was developed and characterized by Cofactor Genomics in San Francisco, CA. ImmunoPrism is for Research Use Only and not for use in diagnostics procedures. The results of the included report are subject to change in future releases. Immune cell quantification is determined using Cofactor's database of Health Expression Models. Expression levels of all genes are calculated for the sample and compared to the mean of the expression for all samples provided in the study. Immune profiling in ImmunoPrism has been shown to significantly correlate with flow cytometry measurements for PBMC samples across 8 different immune cell types. In addition, ImmunoPrism immune profiling performs consistently across fresh-frozen and formalin-fixed samples. Furthermore, ImmunoPrism immune profiling has been validated in dissociated tumor cells. For technical support or additional information on assay performance or validation, please visit: https://cofactorgenomics.com/immunoprism-assay/.

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