

**S3 Table. Functional gene classification using DAVID.** The top three enrichment groups found from the 273 identifiable genes with statistical significance.

Group	Enrichment Score*	Kappa**	Gene name
IL-1 Family	8.851	<b>0.97</b>	<b>IL1F10: interleukin 1 family, member 10 (theta)</b>
		<b>0.94</b>	<b>IL1F9: interleukin 1 family, member 9</b>
		<b>0.89</b>	<b>IL1F5: interleukin 1 family, member 5 (delta)</b>
		<b>0.71</b>	<b>IL1F8: interleukin 1 family, member 8 (eta)</b>
		0.57	IL1RN; interleukin 1 receptor antagonist
		0.46	IL33: interleukin 33
Chemokine Family (C-C and C-X-C motif ligand)	7.078	<b>0.83</b>	<b>CXCL2: chemokine (C-X-C motif) ligand 2</b>
		<b>0.82</b>	<b>CCL20: chemokine (C-C motif) ligand 20</b>
		<b>0.81</b>	<b>CCL3L3/L1: chemokine (C-C motif) ligand 3-like 3/1</b>
		<b>0.80</b>	<b>CXCL5: chemokine (C-X-C motif) ligand 5</b>
		<b>0.77</b>	<b>CXCL1: chemokine (C-X-C motif) ligand 1</b>
		0.59	CCL3: chemokine (C-C motif) ligand 3
		0.45	IL8: interleukin 8
		0.41	GDF15: growth differentiation factor 15
		0.38	CCL5: chemokine (C-C motif) ligand 5
		0.35	IL1RN: interleukin 1 receptor antagonist
Histone Family	3.172	<b>0.93</b>	<b>HIST1H2BD: histone cluster 1, H2bd</b>
		<b>0.92</b>	<b>HIST2H2AA3/4: histone cluster 2, H2aa3; H2aa4</b>
		<b>0.91</b>	<b>H2AFJ: H2A histone family, member J</b>
		<b>0.90</b>	<b>HIST1H2AC: histone cluster 1, H2ac</b>
		<b>0.90</b>	<b>HIST2H2AC: histone cluster 2, H2ac</b>
		<b>0.88</b>	<b>HIST1H2BF: histone cluster 1, H2bi</b>
		<b>0.88</b>	<b>HIST2H2BE: histone cluster 2, H2be</b>
		0.73	HIST1H4J: histone cluster 1, H4I
		0.73	H1F0: H1 histone family, member 0
0.51	HJURP: Holliday junction recognition protein		

\*Geometric mean of the overall group significance based on gene EASE scores (modified Fisher Exact P-Value) in -log scale.

\*\*Gene-to-gene Similarity Score: **Very high (0.75-1)**, High (0.5-0.75), Moderate (0.25-0.5), Low (<0.25)