

Table: GSEA Results Summary

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|-----------------------------------|--|
| | |
| Dataset | deg_Mcoln1_wtlps_kolps_hsa_ranking.rnk_collapsed |
| Phenotype | NoPhenotypeAvailable |
| Upregulated in class | na_pos |
| GeneSet | HSA05321 |
| Enrichment Score (ES) | 0.52898735 |
| Normalized Enrichment Score (NES) | 1.5776722 |
| Nominal p-value | 0.017191976 |
| FDR q-value | 0.046999987 |
| FWER p-Value | 0.051 |

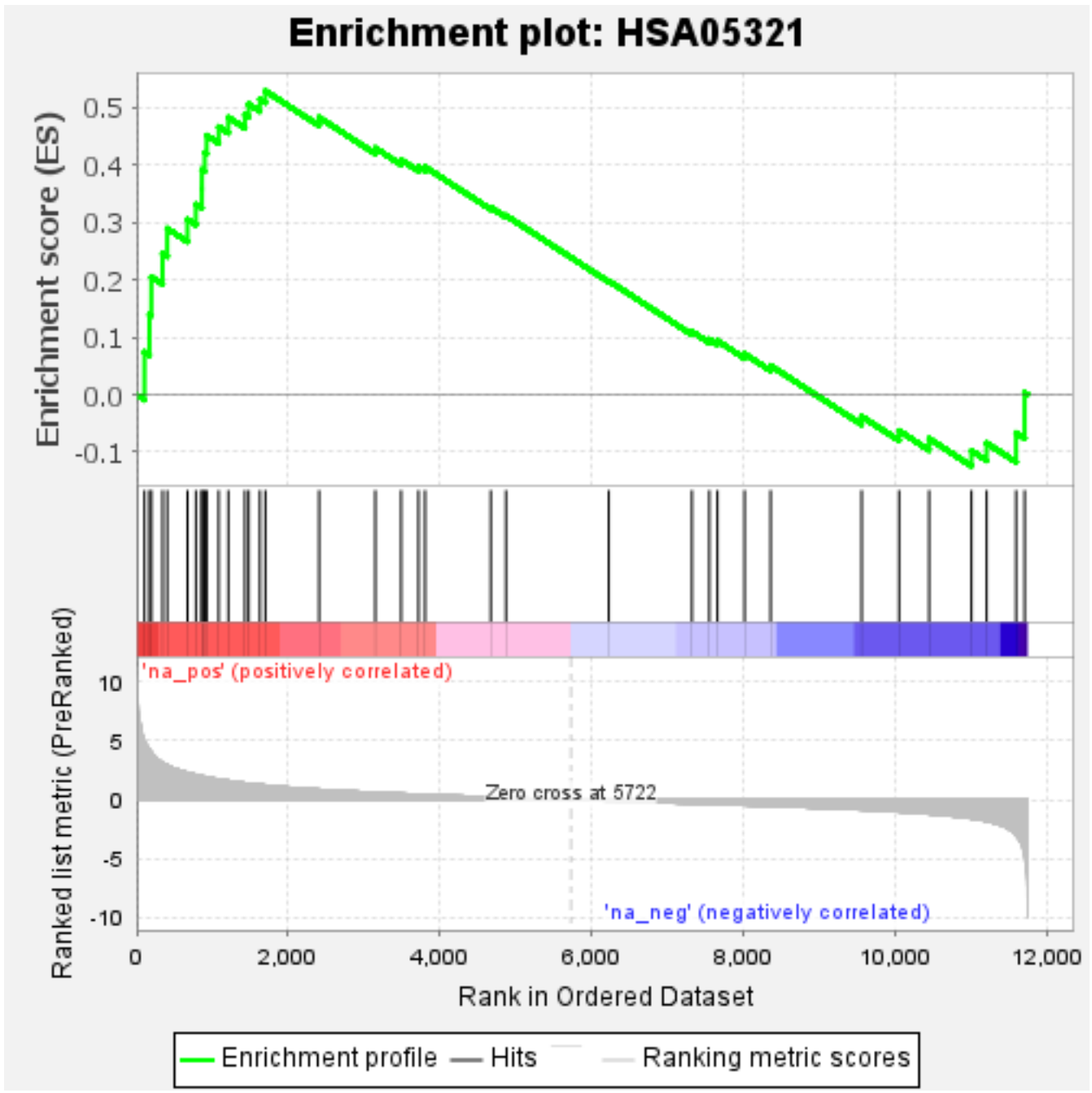


Fig 1: Enrichment plot: HSA05321
Profile of the Running ES Score & Positions of GeneSet Members on the Rank Ordered List

Table: GSEA details [\[plain text format\]](#)

| | SYMBOL | TITLE | RANK IN GENE LIST | RANK METRIC SCORE | RUNNING ES | CORE ENRICHMENT |
|----|-------------------------|---|-------------------|-------------------|------------|-----------------|
| 1 | IL6 | interleukin 6 [Source:HGNC Symbol;Acc:HGNC:6018] | 105 | 4.956 | 0.0743 | Yes |
| 2 | IL10 | interleukin 10 [Source:HGNC Symbol;Acc:HGNC:5962] | 171 | 4.207 | 0.1395 | Yes |
| 3 | IL12RB2 | interleukin 12 receptor subunit beta 2 [Source:HGNC Symbol;Acc:HGNC:5972] | 196 | 4.022 | 0.2051 | Yes |
| 4 | IL23A | interleukin 23 subunit alpha [Source:HGNC Symbol;Acc:HGNC:15488] | 343 | 3.145 | 0.2455 | Yes |
| 5 | STAT4 | signal transducer and activator of transcription 4 [Source:HGNC Symbol;Acc:HGNC:11365] | 405 | 2.924 | 0.2894 | Yes |
| 6 | NFKB1 | nuclear factor kappa B subunit 1 [Source:HGNC Symbol;Acc:HGNC:7794] | 672 | 2.292 | 0.3052 | Yes |
| 7 | GATA3 | GATA binding protein 3 [Source:HGNC Symbol;Acc:HGNC:4172] | 783 | 2.116 | 0.3314 | Yes |
| 8 | IL1B | interleukin 1 beta [Source:HGNC Symbol;Acc:HGNC:5992] | 861 | 1.997 | 0.3583 | Yes |
| 9 | IL18RAP | interleukin 18 receptor accessory protein [Source:HGNC Symbol;Acc:HGNC:5989] | 862 | 1.993 | 0.3919 | Yes |
| 10 | TNF | tumor necrosis factor [Source:HGNC Symbol;Acc:HGNC:11892] | 900 | 1.941 | 0.4213 | Yes |
| 11 | IL1A | interleukin 1 alpha [Source:HGNC Symbol;Acc:HGNC:5991] | 925 | 1.910 | 0.4514 | Yes |
| 12 | RORA | RAR related orphan receptor A [Source:HGNC Symbol;Acc:HGNC:10258] | 1083 | 1.704 | 0.4666 | Yes |
| 13 | NOD2 | nucleotide binding oligomerization domain containing 2 [Source:HGNC Symbol;Acc:HGNC:5331] | 1210 | 1.598 | 0.4827 | Yes |
| 14 | RELA | RELA proto-oncogene, NF-kB subunit [Source:HGNC Symbol;Acc:HGNC:9955] | 1428 | 1.390 | 0.4875 | Yes |
| 15 | TGFB2 | transforming growth factor beta 2 [Source:HGNC Symbol;Acc:HGNC:11768] | 1478 | 1.354 | 0.5061 | Yes |
| 16 | IL5 | interleukin 5 [Source:HGNC Symbol;Acc:HGNC:6016] | 1626 | 1.257 | 0.5147 | Yes |
| 17 | STAT3 | signal transducer and activator of transcription 3 [Source:HGNC Symbol;Acc:HGNC:11364] | 1698 | 1.212 | 0.5290 | Yes |
| 18 | IL12A | interleukin 12A [Source:HGNC Symbol;Acc:HGNC:5969] | 2406 | 0.850 | 0.4829 | No |
| 19 | IL18 | interleukin 18 [Source:HGNC Symbol;Acc:HGNC:5986] | 3147 | 0.594 | 0.4296 | No |
| 20 | SMAD2 | SMAD family member 2 [Source:HGNC Symbol;Acc:HGNC:6768] | 3487 | 0.496 | 0.4090 | No |
| 21 | TGFB1 | transforming growth factor beta 1 [Source:HGNC Symbol;Acc:HGNC:11766] | 3716 | 0.437 | 0.3969 | No |
| 22 | IFNGR2 | interferon gamma receptor 2 [Source:HGNC Symbol;Acc:HGNC:5440] | 3803 | 0.415 | 0.3965 | No |
| 23 | TLR4 | toll like receptor 4 [Source:HGNC Symbol;Acc:HGNC:11850] | 4668 | 0.211 | 0.3263 | No |
| 24 | TGFB3 | transforming growth factor beta 3 [Source:HGNC Symbol;Acc:HGNC:11769] | 4869 | 0.171 | 0.3121 | No |
| 25 | STAT1 | signal transducer and activator of transcription 1 [Source:HGNC Symbol;Acc:HGNC:11362] | 6223 | -0.098 | 0.1981 | No |
| 26 | NFATC1 | nuclear factor of activated T cells 1 [Source:HGNC Symbol;Acc:HGNC:7775] | 7319 | -0.316 | 0.1099 | No |
| 27 | IL4 | interleukin 4 [Source:HGNC Symbol;Acc:HGNC:6014] | 7548 | -0.361 | 0.0965 | No |
| 28 | STAT6 | signal transducer and activator of transcription 6 [Source:HGNC Symbol;Acc:HGNC:11368] | 7655 | -0.376 | 0.0938 | No |
| 29 | IFNGR1 | interferon gamma receptor 1 [Source:HGNC Symbol;Acc:HGNC:5439] | 8012 | -0.452 | 0.0710 | No |
| 30 | MAF | MAF bZIP transcription factor [Source:HGNC Symbol;Acc:HGNC:6776] | 8355 | -0.527 | 0.0506 | No |
| 31 | FOXP3 | forkhead box P3 [Source:HGNC Symbol;Acc:HGNC:6106] | 9555 | -0.831 | -0.0379 | No |
| 32 | IL2RG | interleukin 2 receptor subunit gamma [Source:HGNC Symbol;Acc:HGNC:6010] | 10048 | -1.011 | -0.0629 | No |
| 33 | JUN | Jun proto-oncogene, AP-1 transcription factor subunit [Source:HGNC Symbol;Acc:HGNC:6204] | 10444 | -1.193 | -0.0766 | No |
| 34 | IL21R | interleukin 21 receptor [Source:HGNC Symbol;Acc:HGNC:6006] | 11002 | -1.579 | -0.0976 | No |
| 35 | SMAD3 | SMAD family member 3 [Source:HGNC Symbol;Acc:HGNC:6769] | 11202 | -1.802 | -0.0843 | No |
| 36 | IL23R | interleukin 23 receptor [Source:HGNC Symbol;Acc:HGNC:19100] | 11590 | -3.023 | -0.0666 | No |
| 37 | IL12RB1 | interleukin 12 receptor subunit beta 1 [Source:HGNC Symbol;Acc:HGNC:5971] | 11703 | -4.728 | 0.0033 | No |

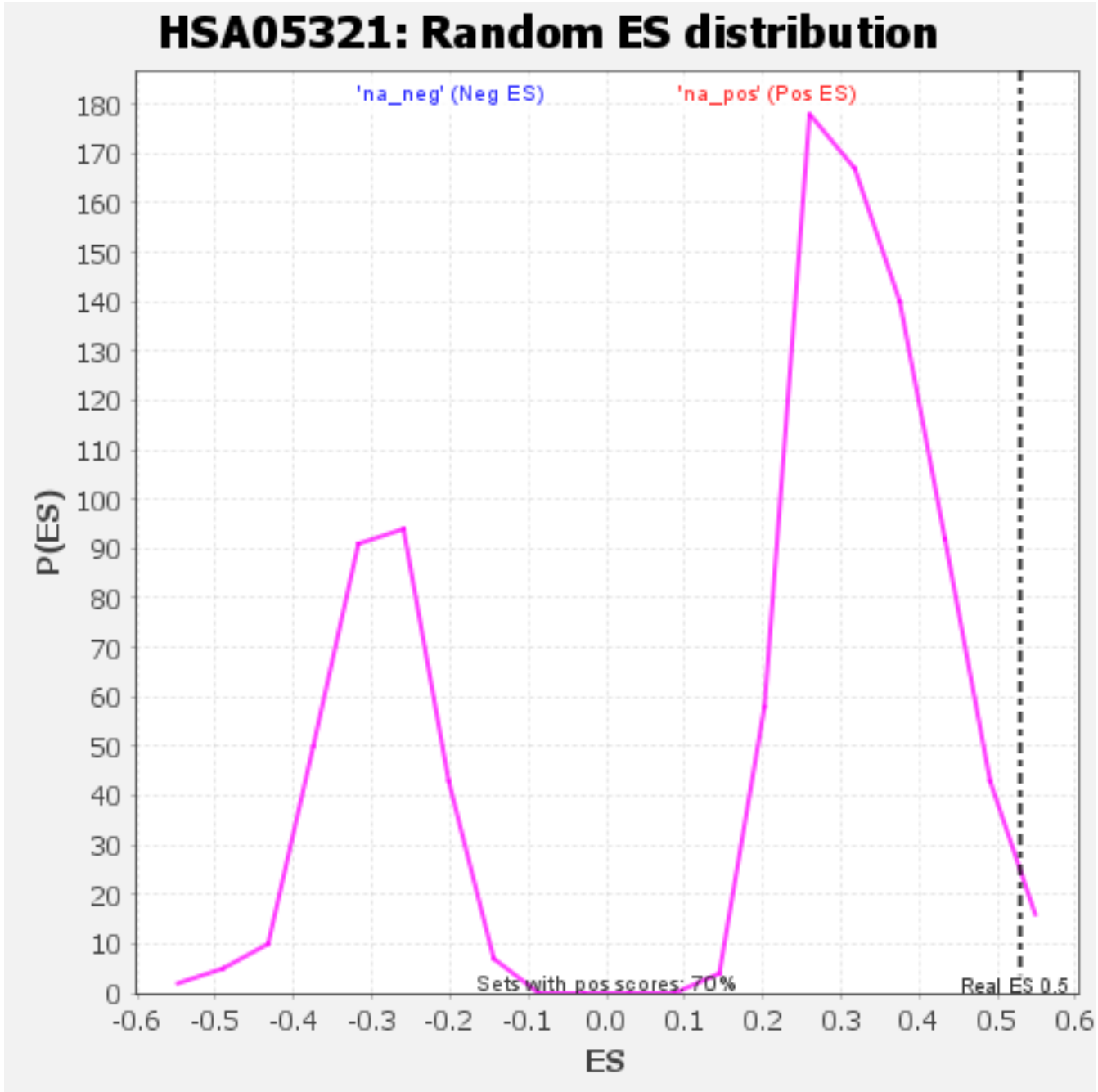


Fig 2: HSA05321: Random ES distribution
Gene set null distribution of ES for HSA05321