

Table -1. The primer sequences applied in q-PCR

	F (5'-3')	R (5'-3')
CCR2	CCACATCTCGTTCTCGGTTTATC	CAGGGAGCACCGTAATCATAATC
CXCR1	CTGACCCAGAAGCGTCACTTG	CCAGGACCTCATAGCAAACCTG
IL13RA1	TGAGTGTCTCTGTTGAAAACCTC	GGGGTACTTCTATTGAACGACGA
CD36	GGCTGTGACCGGAACTGTG	AGGTCTCCAACCTGGCATTAGAA
SLAN	GGAGCAGAATGTCAAGCTGTC	TGGAGTTGGTTCCACACCAGA
CD99	AACCCACCCAAACCGATGC	TGAAAAGCTACCGGAGGAACTA
CLEC4D	CTGATACCTTCGGTTATTGCTGT	GCACTCCTGTGCCTCTCTTAC
CLEC5A	AGGTGGCGTTGGATCAACAA	TTAGGCCAATGGTGCACAG
GFRA2	CCAGCGAGTACACCTACCG	TCCTTGTCTCATAGGAGCAG
Siglec10	AAGGGACTCATCTCAACGGC	CCGTCTCTTCGGTAGAATCTTCA
CD163	TTTGTCAACTTGAGTCCCTTCAC	TCCCGCTACACTTGTTTTTAC
CD1D	TCTCGTCCTTCGCCAATAGC	GGGACCAAGGCTTCAGAGAG
CCR5	TTCTGGGCTCCCTACAACATT	TTGGTCCAACCTGTTAGAGCTA
CD11B	GCCTTGACCTTATGTCATGGG	CCTGTGCTGTAGTCGCACT
CD16	CCTCCTGTCTAGTCGGTTTGG	TCGAGCACCTGTACCATTGA
TNF	CCTCTCTCTAATCAGCCCTCTG	GAGGACCTGGGAGTAGATGAG
IL6	ACTCACCTCTTCAGAACGAATTG	CCATCTTTGGAAGGTTTCAGGTTG
NOS2	TTCAGTATCACAACCTCAGCAAG	TGGACCTGCAAGTAAAATCCC
IL1R1	ATGAAATTGATGTTTCGTCCCTGT	ACCACGCAATAGTAATGTCCTG
IL18	TCTTCATTGACCAAGGAAATCGG	TCCGGGGTGCATTATCTCTAC
IL10	GACTTTAAGGGTTACCTGGGTTG	TCACATGCGCCTTGATGTCTG
ARG1	GTGGAAACTTGCATGGACAAC	AATCCTGGCACATCGGGAATC
TGFB1	GGCCAGATCCTGTCCAAGC	GTGGGTTTCCACCATTAGCAC
MRC1	TCCGGGTGCTGTTCTCTCTA	CCAGTCTGTTTTTGTATGGCACT
VEGF	AGGGCAGAATCATCACGAAGT	AGGGTCTCGATTGGATGGCA
S100A8	ATGCCGTCTACAGGGATGAC	ACTGAGGACACTCGGTCTCTA
S100A9	GGTCATAGAACACATCATGGAGG	GGCCTGGCTTATGGTGGTG
MMP7	GAGTGAGCTACAGTGGGAACA	CTATGACGCGGGAGTTTAAACAT
CXCR3	CCACCTAGCTGTAGCAGACAC	AGGGCTCCTGCGTAGAAGTT
TNFRSF1B	CGGGCCAACATGCAAAAAGTC	CAGATGCGGTTCTGTTCCC
PTGDR2	TCTGCACTTCCAACCTTAGGCG	GCTCTGGAGACGGCTCATC
MMP1	AAAATTACACGCCAGATTTGCC	GGTGTGACATTACTCCAGAGTTG
GAPDH	ACAACCTTGGTATCGTGGAAGG	GCCATCACGCCACAGTTTC

Table-2. 73 genes that highly expressed on monocytes.

CD14/CXCR3/ITGAM/MMP25/MMP7/CSF1R/S100A8/TNF/SIGLEC10/MMP14/MMP9/CD33/CD40/S100A10/CD99/MMP11/S100A16/CD9/S100A9/MMP8/S100A6/MMP13/S100A4/CCL2/CD36/CD74/S100A11/CD163/TNFRSF1B/FCGR3A/MMP27/SELL/S100A14/S100A12/CXCR2/PTGDR2/CD1D/CD274/IL13RA1/S100A13/SECISBP2L/CXCR1/FCGR1A/CLEC4D/CXCR4/IL1B/CSF3/IL8/MMP17/CD86/CLEC10A/MMP19/CD80/MMP1/CCR2/MMP28/CCR5/CX3CR1/ICAM1/CCR1/IL10/GFRA2/CLEC5A/MMP12/MMP2/MMP15/S100A1/MMP24/IL6/S100A3/S100A7/MMP21/S100A5

Table-3. Inter-pool comparison strategies to screen out DEGs associated with HFpEF

	Description	Intervention	Target genes	Gene list
1	Overlapping genes between Pool-2 and -7	The expressions of markers on PBMCs showed significant differences between ESRD HFpEF patients and normal CKD patients.	28	SECISBP2L/CD99/S100A13/MMP9/MMP25/TNF/CD14/CCL2/SIGLEC10/MMP14/MMP11/MMP13/CD9/CD163/CSF1R/CD40/MMP27/CCR2/CD36/S100A8/CLEC4D/MMP7/CXCR3/S100A14/IL13RA1/CD33/MMP1/PTGDR2/
2	Overlapping genes between Pool-4 and -7	The expressions of markers on PBMCs showed significant differences between ESRD patients with HFpEF and surviving from HF.	35	SECISBP2L/MMP8/S100A10/ITGAM/CD99/CXCR2/CXCR4/CCR5/S100A12/S100A13/S100A11/CD86/SIGLEC10/CCL2/CD9/CD163/MMP13/CSF1R/CD40/CD14/S100A14/MMP27/CD36/CCR2/S100A8/CLEC4D/MMP9/MMP11/MMP7/TNF/CXCR3/MMP14/MMP25/IL13RA1/PTGDR2/
3	Overlapping genes among Pool-2, -4 and -7	The expressions of markers on PBMCs showed significant differences among ESRD HFpEF patients, ESRD HF survivors and normal CKD patients, by the measurement of ESRD HF survivors.	14	SECISBP2L/MMP8/S100A10/CXCR2/CXCR4/CCR5/S100A12/S100A11/CD14/S100A8/MMP9/MMP7/TNF/MMP25/
4	Overlapping genes	The expressions of	26	SECISBP2L/CD99/S100A13/SIGLEC10/CCL2/CD9/CD163/MMP13/CSF

	among Pool-1, -4 and -7	markers on PBMCs that showed significant differences among ESRD/HFpEF patients, ESRD/HF survivors and normal CKD patients, by the measurement of ESRD HFpEF patients.		1R/CD40/CD14/S100A14/MMP27/CD36/CCR2/S100A8/CLEC4D/MMP9/MMP11/MMP7/TNF/CXCR3/MMP14/MMP25/IL13RA1/PTGDR2/
5	Overlapping genes among Pool-1, -2, -4 and -7	DEGs encoding PBMCs markers among ESRD/HFpEF patients, ESRD/HF survivors and normal CKD patients.	7	SECISBP2L/MMP9/MMP25/TNF/CD14/S100A8/MMP7/
6	Overlapping genes between Pool-6 and -7	DEGs encoding PBMCs markers among ESRD patients with HFpEF and HFrEF.	16	CD163/S100A8/MMP1/MMP7/TNFRSF1B/PTGDR2/CD1D/FCGR3A/CD80/GFRA2/CD33/CD74/MMP13/S100A10/CSF1R/MMP8/
7	Overlapping genes between Pool-4 and -7 but excluding Pool-5	DEGs encoding PBMCs markers between ESRD/HFpEF patients and ESRD/HF survivors, excluding the genes that presented	5	MMP7/S100A8/CD99/MMP8/CCR5/

		significant expressions in ESRD/HFrEF patients.		
8	Overlapping genes among Pool-1, -4 and -7 but excluding Pool-5	Followed by the Strategy 3, excluding the genes that presented significant expressions in ESRD/HFrEF patients.	4	MMP7/S100A8/MMP8/CCR5/
9	Overlapping genes among Pool-1, -2, -4 and -7 but excluding Pool-5	Followed by the Strategy 5, excluding the genes that presented significant expressions in ESRD/HFrEF patients.	2	MMP7/S100A8/

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