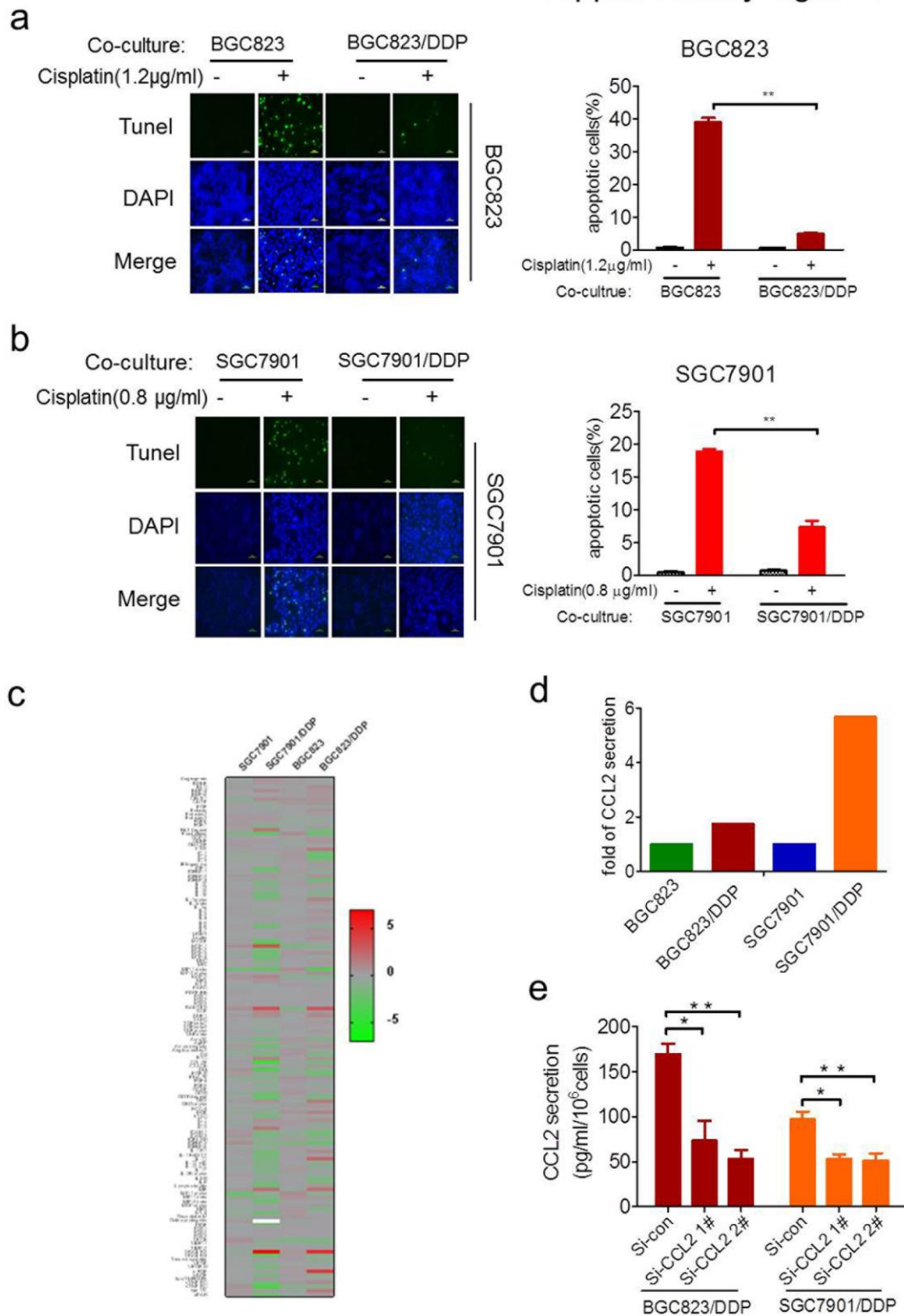


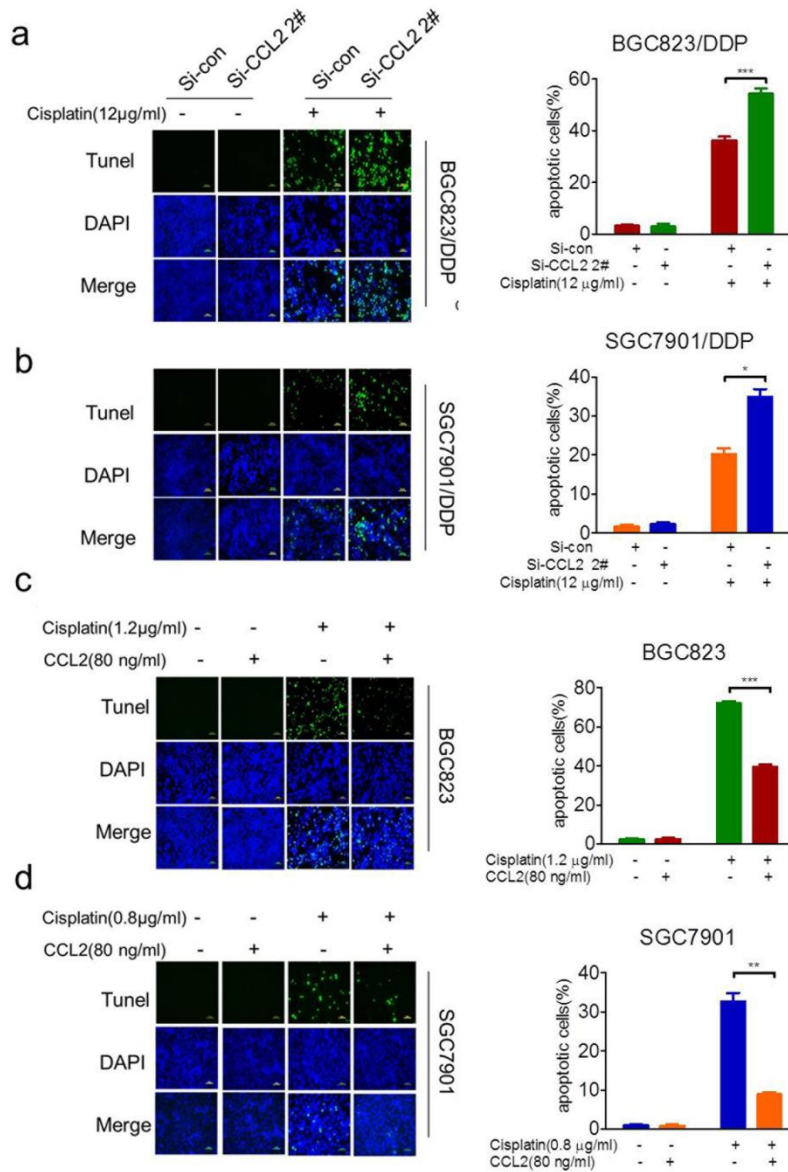
## Supplementary figure 1



**Supplementary Figure 1.** (a-b) The apoptosis of BGC823 (a) and SGC7901 (b) treated as in Figure 1c were analyzed by the TUNEL assay (c) hot map of differential cytokines in cisplatin resistant cell. (d) Fold change of CCL2 in the conditional mediums, which were used for screening cytokines with cytokine antibody array. (e) CCL2 level in the conditional

medium of BGC823/DDP and SGC7901/DDP cells transfected with CCL2 siRNA was determined by ELISA. (\* $P$ <0.05, \*\* $P$ <0.01)

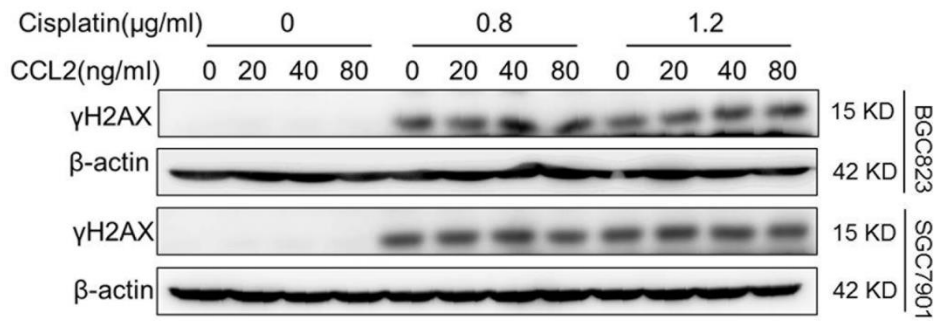
### Supplementary figure 2



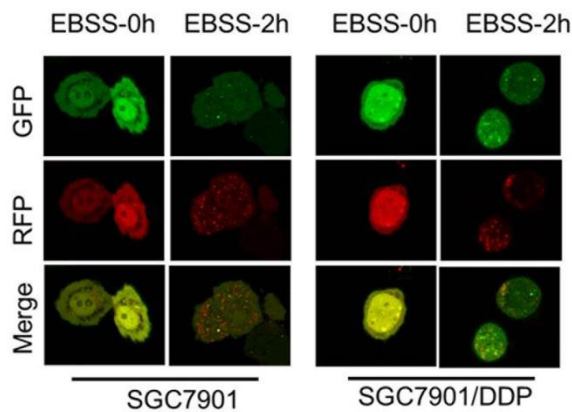
**Supplementary Figure 2. (a-b)** The apoptosis of BGC823/DDP (a) and SGC7901/DDP (b) cells treated as in Figure 2A was determined by the TUNEL assay **(c-d)** The apoptosis of BGC823 (c) and SGC7901 (d) cells treated as in Figure 2D was determined by the TUNEL assay. (\* $P$ <0.05, \*\* $P$ <0.01, \*\*\* $P$ <0.001)

Supplementary figure 3

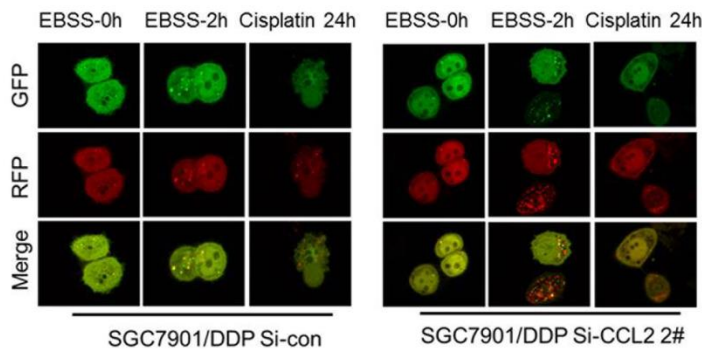
a



b

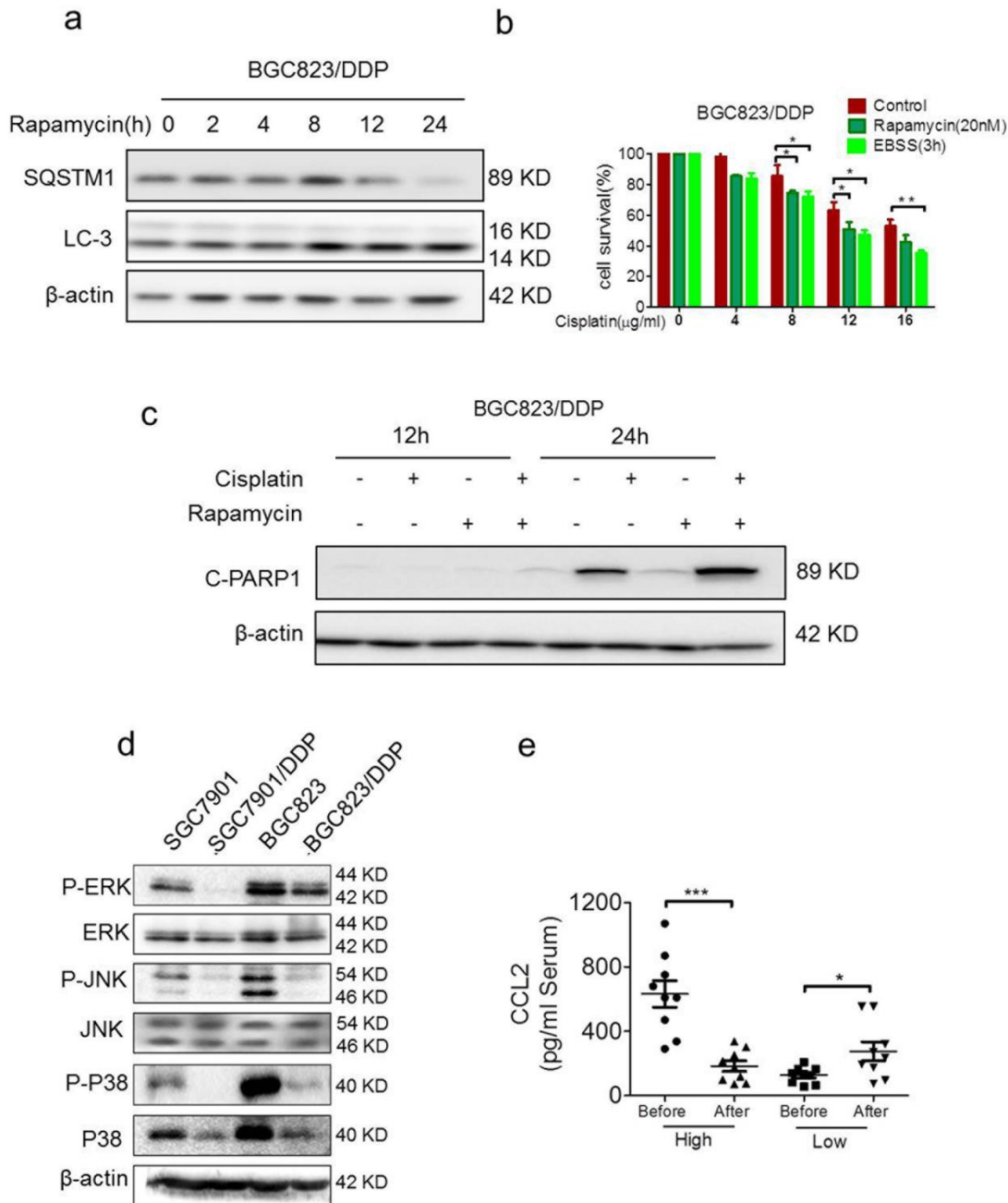


c



**Supplementary Figure 3. (a)** The levels of  $\gamma$ H2AX in cisplatin treated BGC823 and SGC7901 cells with or without recombinant CCL2 incubation were determined by Western blotting. **(b)** The effect of EBSS incubation on mRFP-GFP-LC3 distribution in BGC823, BGC823/DDP, SGC7901 and SGC7901/DDP cells was analyzed by confocal microscopy after 48 h of mRFP-GFP-LC3 plasmid transfection. **(c)** The effect of EBSS or cisplatin incubation on autophagy flux in CCL2 knockdown SGC7901/DDP cells transfected with mRFP-GFP-LC3 was analyzed by confocal microscopy.

## Supplementary figure 4



**Supplementary Figure 4.** (a) The LC-3 and SQSTM1 levels in BGC823/DDP cells before and after rapamycin treatment were determined by Western blotting. (b) The viability of cisplatin-treated BGC823 cells in the presence or absence of rapamycin or EBSS were determined by CCK-assay. (c) Cisplatin-induced apoptosis in BGC823/DDP cells before and after rapamycin treatment were determined by Western blotting. (d) The expression of ERK, P-ERK, JNK, P-JNK, P38, P-38 in various cells were determined by Western blotting. (e) The levels of CCL2 in before and after surgery gastric cancer patients' sera were detected by ELSIA (High: n=9, Low: n=9). (\* $P$ <0.05, \*\* $P$ <0.01, \*\*\* $P$ <0.001)

**Supplementary table**

Name	Sample signal value				Sample comparison results	
	SGC7901 1#	SGC7901/DDP 2#	BGC823 3#	BGC823/DDP 4#	2# vs 1#	4# vs 3#
Angiogenin	16597.5	31910	23993	20009	1.92	0.83
BDNF	161	205.5	202	154.5	1.28	0.76
BLC	17.5	15	14	26		
BMP-4	56	109.5	60.5	77		
BMP-6	106	101	103.5	142.5		
CKb8-1	13	37	31	29		
CNTF	76	87.5	113	138		
EGF	154	105	132.5	107		
Eotaxin	64.5	59.5	62.5	86.5		
Eotaxin-2	59	63.5	51	60		
Eotaxin-3	73.5	74.5	47.5	51.5		
FGF-6	147.5	130.5	104.5	97		
FGF-7	80.5	31	54	72		
Fit-3 Ligand	148.5	492	141	63	3.31	
Fractalkine	18	9	78.5	10		
GCP-2	9	10	10	11		
GDNF	115.5	111.5	78	128.5		
GM-CSF	13	10	10	11		
I-309	5	6.5	6	15.5		
IC 1	3578.5	4522	6074	1242	1.26	0.20
IC 2	1797.5	1811	2772.5	427	1.01	0.15
IC 3	337	286	484	182	0.85	0.38
IFN-gamma	9	10	10	11		
IGF-1	34.5	7.5	35.5	24.5		
IGFBP-1	6165	4689	8862	6231.5	0.76	0.70
IGFBP-2	21.5	21.5	13.5	26.5		
IGFBP-4	835.5	628	1074	220	0.75	0.20
IL-10	66.5	28	81.5	84		
IL-13	85	51	76	67		

IL-15	93	42	84	50.5		
IL-16	87	18	69.5	51		
IL-1alpha	109	61	125	260.5		2.08
IL-1beta	9	10	10	11		
IL-1ra	320.5	255.5	261	286	0.80	1.10
IL-2	77.5	51.5	66.5	94.5		
IL-3	413.5	357.5	383	446.5	0.86	1.17
IL-4	95.5	111	114	134		
IL-5	92.5	70	103.5	106.5		
IL-6	8422	1669	6668.5	4348	0.20	0.65
IL-7	141	139.5	145	181.5		
LIGHT	57.5	65.5	73	80		
Leptin	52	31	43.5	70.5		
M-CSF	73.5	7.5	88.5	85.5		
MCP-1	3163.5	17935.5	568.5	993.5	5.67	1.75
MCP-2	47	13	54.5	40		
MCP-3	31	11.5	53	60.5		
MCP-4	28	8	33	26.5		
MDC	138.5	74.5	123.5	158.5		
MIG	88.5	61.5	87.5	99.5		
MIP-1 delta	16	10	101	6		
MIP-3 alpha	50	57.5	60	89.5		
NAP-2	28.5	41	10.5	9		
NEG	10.25	13.75	9.13	8.38		
NT-3	256	259	381	340.5	1.01	0.89
PARC	108.5	99.5	107	98		
PDGF-BB	1870.5	1607	1480	1814	0.86	1.23
POS1	58385	59083	57215	65526.5	1.01	1.15
POS2	29774	28243	28136	30407.5	0.95	1.08
POS3	16261.5	16085.5	16117.5	15517.5	0.99	0.96
RANTES	2652.5	15478	686.5	13365	5.84	19.47
SCF	140.5	304.5	157	212	2.17	1.35

SDF-1	61	86.5	37.5	98		
TARC	37	29	38	36		
TGF-beta1	141.5	116.5	150.5	181		
TGF-beta3	59	44.5	64.5	63		
TNF-alpha	159.5	97.5	130.5	172.5		
TNF-beta	265.5	240.5	270	231.5	0.91	0.86
Acrp30	22	10	44	16.5		
AgRP	87	73	116.5	106		
Amphi-regulin	361.5	72.5	223.5	394	0.20	1.76
Angio-poietin-2	104	94	186.5	107.5		
Axl	364.5	194	629.5	194.5	0.53	0.31
BTC	10.5	26	11	16		
CCL-28	188.5	6.5	122	51.5		
CTACK	200	206	229	289.5	1.03	1.26
Dtk	156	10	68	51.5		
EGF-R	5038.5	2654	3370	1045.5	0.53	0.31
ENA-78	28.5	22.5	69	60.5		
FGF-4	217.5	209	319	255	0.96	0.80
FGF-9	157.5	81	163.5	113.5		
GCSF	160.5	148	195.5	194.5		
GITR	93	45.5	183.5	106.5		
GITR-Ligand	50	10	58.5	21		
GRO	2346.5	2866.5	1365.5	5337.5	1.22	3.91
GRO-alpha	118	115.5	176.5	185.5		
HCC-4	62	49.5	54	62		
HGF	22.5	18	47.5	78		
I-TAC	54	19	60.5	51.5		
IC 1	117	195	160.5	212		1.32
IC 2	121	174	182	85		
IC 3	67	198	61.5	69		
ICAM-1	2025.5	641	1134.5	367	0.32	0.32

ICAM-3	39.5	10	16.5	10		
IGF-I SR	10	7.5	14	9.5		
IGFBP-3	86.5	22	16	9.5		
IGFBP-6	3179	2711.5	4267	3389	0.85	0.79
IL-1 R1	38	8.5	33	62.5		
IL-1 R4/ST2	191.5	73	222	214		0.96
IL-11	22.5	10	29.5	144.5		
IL-12 p40	212.5	75	195.5	130.5	0.35	
IL-12 p70	81	50.5	111	54		
IL-17	77	37.5	110.5	77		
IL-2R alpha	155.5	87	98.5	108.5		
IL-6R	2126.5	1502.5	2086.5	781	0.71	0.37
IL-8	2471.5	980.5	2804	871.5	0.40	0.31
Lympho-tactin	36	10	34.5	47.5		
MIF	1472.5	4899	947	4812	3.33	5.08
MIP-1 alpha	7	17.5	49.5	17		
MIP-1 beta	16.5	10	35.5	33		
MIP-3 beta	42	10	39	33.5		
MSP-alpha	461	385	616.5	660	0.84	1.07
NEG	7.13	10	11.88	4.13		
NT-4	31.5	10	53	36.5		
Oncostatin M	159	178	281	234		0.83
Osteo- protegerin	205.5	46237	129	168.5	225.00	
PIGF	21	10	23.5	22.5		
POS1	59113.5	63651	67573. 5	71286.5	1.08	1.05
POS2	36542.5	37410	37153. 5	37018.5	1.02	1.00
POS3	18203.5	18483	17287. 5	17381	1.02	1.01
TECK	41	17	9.5	9.5		



TIMP-1	4501	3057.5	4177	2917	0.68	0.70
TIMP-2	6841.5	5739	8774	8711.5	0.84	0.99
TRAIL R3	84.5	12653	162.5	3896	149.74	23.98
TRAIL R4	42	7	58	31.5		
Thrombopoietin	55	75.5	84.5	38.5		
VEGF	3099	1543.5	2766	2108.5	0.50	0.76
VEGF-D	24	10	33	29		
b FGF	1022.5	1217	1357	24450.5	1.19	18.02
b-NGF	75.5	27.5	92.5	49		
fas/TNFRSF6	1113	1396	1167	1198.5	1.25	1.03
sTNF R I	33	13.5	54	77		
sTNF R II	620	34.5	214	221.5	0.06	1.04
sgp130	557.5	515	387	1466	0.92	3.79
uPAR	5940.5	1080	3785.5	6172	0.18	1.63