Supplementary Material

Supplementary Methods

Patients and specimens

One hundred and eight RA patients from the Department of Rheumatology and Immunology, Peking University People's Hospital were enrolled in the study. All patients fulfilled the 2010 American College of Rheumatology (ACR) classification criteria for RA (12). Disease activity was evaluated by the DAS28. Thirty-nine patients with OA and fifty HCs were collected at the same hospital as disease controls. This study was approved by the Ethics Committee of Peking University People's Hospital, and informed consents were obtained from all the participants.

Statistical analysis

Data were presented as mean ± standard deviation. Statistical analysis was performed with SPSS 22.0 and GraphPad Prism 5. Statistical significance between two groups was assessed with the nonparametric Mann–Whitney test, paired t test, Student's t test, and χ^2 test. The correlations between sCD25 levels and diverse indices were analyzed by Spearman's rank correlation coefficient. A P value < 0.05 was considered to be significant. The cut-off value of sCD25 concentrations were determined with receiver operating characteristic (ROC) analysis.

Supplementary Tables

Supplementary table S1. Clinical and laboratory features of patients with RA

Characteristic	Value
Age (years)	60.11±10.59
Sex (female/male)	55/53
Smoking (yes/no)	19/89
Disease duration (years)	12.22±9.33
Tender joints (number)	10.15±9.74
Swollen joints (number)	8.06±8.07
RF＞20 (%)	76/108(70.37)
ESR＞20 (%)	82/108(75.92)
CRP＞8	70/108(64.81)
CRP＞37.5	29/108(26.85)
AKA(+) (%)	43/99(43.643)
APF(+) (%)	47/100(47.00)
CCP＞123.41	69/98(70.41)
CCP(+) (%)	86/98(87.76)
HRF-IgG(+) (%)	34/98(34.69)
GPI (+) (%)	45/96(46.88)
DAS28	4.64±1.25

Numerical data are presented as the mean ± SD. RF: rheumatoid factor, ESR: erythrocyte sedimentation rate, CRP: C-reaction protein, AKA: anti-keratin antibody, APF: anti perinuclear factor, Anti-CCP: anti-cyclic citrullinated peptide antibody, HRF-IgG: rheumatoid factor immunoglobulin G, GPI: glucose-6-phosphate isomerase, DAS28: the 28-joint count Disease Activity Score

Supplementary table S2. Therapies received by sCD25 elevated and normal patients.

Therapy	Serum CD25		p value
	Elevated (n = 73)	Normal (n=35)	
GC	23(31.5)	13(37.1)	0.561
DMARDS	64(87.7)	31(88.6)	0.893
HCQ	20(27.4)	8(22.9)	0.614
LEF	51(69.9)	25(71.4)	0.868
MTX	21(28.8)	9(25.7)	0.740
SSZ	14(19.2)	9(25.7)	0.437
combine	18(24.7)	12(34.3)	0.296

GC: Glucocorticoid; DMARD: disease-modifying anti-rheumatic drugs; HCQ: hydroxychloroquine; LEF: leflunomide; MTX: methotrexate; SSZ: sulfasalazine; combine: GC with one or more of the DMARDs.