

Suppl. Table 1: LD Plot for SOCS1 und SOCS3 polymorphisms according to haploview¹

SOCS1	rs243330	rs193779	rs33989964	rs33977706	rs4780355
rs243330		0.25	0.36	0.37	0.35
rs193779	1.0		0.09	0.09	0.07
rs33989964	1.0	1.0		0.13	0.70
rs33977706	1.0	0.98	1.0		0.17
rs4780355	0.83	0.72	1.0	0.94	

r^2

D'

SOCS3	rs8064821	rs7207782	rs199915361	rs4969169
rs8064821		0.10	0.01	0.02
rs7207782	1.0		0.03	0.05
rs199915361	1.0	0.85		0.004
rs4969169	1.0	1.0	0.89	

r^2

D'

The correlation coefficient (r^2) and the Lewontin normalized D (D') are shown for each SNP combination in the top right part and in the bottom left part for the SOCS-1 and SOCS-3 gene, respectively.

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Suppl Table 2A: Compilation of studies examining SNPs of SOCS1 in case-control studies

SNP	Findings		Ref
rs33989964	rs33989964: positive correlation with adult asthma	Enhances the transcriptional level of SOCS1 in human lung epithelial cells	(1)
rs33989964	Less patients with Lupus erythematosus suffering from thrombocytopenia		(2)
rs33977706 rs33989964	rs33977706: low frequency of A/A genotype in chronic periodontitis		(3)
rs4780355	Associated with Psoriasis and Crohn disease		(4)
rs33977706 rs243330	rs33977706 associated with increased insulin sensitivity (IS) and low BMI, whereas rs243330 associated with decreased IS	rs33977706 affected both binding of a nuclear protein to and the transcriptional activity of the SOCS1 promoter	(5)
rs243330	In a cohort of obese individuals (BMI >30 kg/m ²) the occurrence of the G allele of the SOCS1-1656G>A polymorphism was strongly associated with non-alcoholic fatty liver disease		(6)
rs33932899	Lower levels of serum IgE (in complete LD with rs33977706)	rs33977706 with a T at the -820 position demonstrates increased activity	(7)
rs243324	Multiple sclerosis (rs33977706 occurs in moderate LD with rs243324 (r ² =0.19, D' ² =0.80; http://www.broadinstitute.org/mpg/snap/ in 1000 Genomes Pilot 1 SNP data set).		(8)
rs243327 rs243330 rs33977706 rs33932899	All four SNPs associated with acute coronary syndrome		(9)
rs193779	Association of rs193779 with breast cancer was limited to women with low Indigenous American ancestry		(10)
rs4780355 rs193779	Colon (rs4780355) and rectal cancer survival (rs193779)		(11)

Suppl Table 2B: Compilation of studies examining SNPs of SOCS3 in case-control studies

SNP	Findings		Ref
rs2280148 rs8064821	rs2280148: significantly higher in obese subjects with metabolic syndrome (MS) than in controls rs8064821: significantly higher in obese subjects with MS than in obese children without MS	Study done in Turkish children	(12)
rs12953258	In the group of young healthy subjects the insulin sensitivity index was higher among homozygous carriers of the A-allele than among heterozygous and wild-type subjects		(13)
rs2280148 rs8064821	rs2280148 was significantly associated with an increased risk of head neck squamous cell cancer (HNSCC) (additive model) rs8064821 was linked with a decreased risk of HNSCC (additive model). Combined analysis of these variants by the number of risk alleles showed a significant locus–dosage effect.		(14)
rs12953258	No evidence for a major role of the respective SNPs in SOCS3 in the pathogenesis of extreme obesity in children	Study done in German children	(15)
rs111033850 rs12953258	No marked association between SOCS3 gene promoter region polymorphisms and the risk of developing metastatic colorectal cancer.	Turkish population	(16)
rs4969169 rs12953258 rs8064821	Individual SOCS3 SNPs were not associated with general or central obesity, or with two indices of insulin sensitivity (homeostasis model assessment and insulin sensitivity measure).	UK population	(17)
rs4969170 rs8064821 rs12953258	rs4969170 A > G polymorphism dramatically affects the susceptibility to HCC, is a risk factor for HCC and predicts the postoperative relapse-free survival and overall survival.	Chinese population	(18)
rs8064821 rs4969168 rs2280148 rs35037722	Males exhibited GG homozygous at rs35037722 in association with susceptibility to tuberculosis (TB) after the OR analysis was adjusted for age. For rs8064821, AA and AC genotypes were associated with TB susceptibility in patients ≤65 years old compared to CC genotype, whereas older subjects had no such association	Han Taiwanese population	(19)

rs8064821	rs8064821 were associated with a 6-month survival advantage compared to non-carriers in patients suffering from pancreatic cancer and resected disease	American population	(20)
rs12953258	No association of SNPs with rheumatoid arthritis	Chinese Han population	(21)
rs12952093 rs4969170 rs4969168 rs4969169 rs2280148	rs4969170 AA genotype was strongly associated with Graves opthalmopathy	Chinese Han population The AA genotype carriers had significantly higher SOCS3 mRNA and protein levels than those with the GG genotype.	(22)
rs12953258	rs12953258 showed a close relationship with dyslipidemia in Uygur		(23)

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