

TREX1 polymorphisms associated with autoantibodies in patients with systemic lupus erythematosus

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The information of *TREX1* and *TREX2* has been changed in NCBI data base (<http://www.ncbi.nlm.nih.gov>). Therefore, we would like to update the gene and SNP nomenclatures as in following Table 1 and Fig. 1. Our conclusion should be revised as “*ATRIP* polymorphism $-455G>C$ showed protective effect on the production of anti-Ro Ab, and *TREX1* $+696C>T$ in exon 1 and *ATRIP-TREX1* *ht2* [G–T–C–T] showed also protective effect on the production of anti-dsDNA Ab.”

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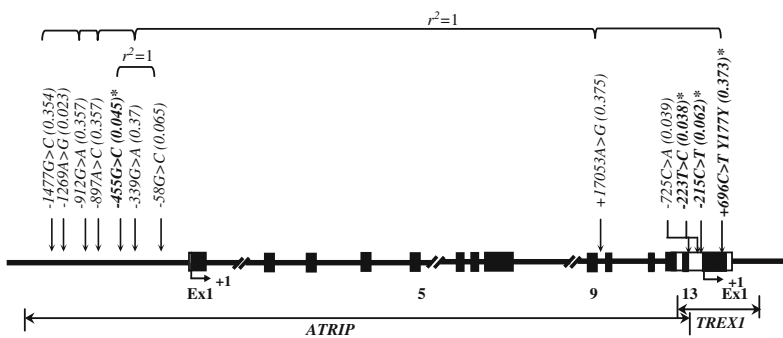
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Table 1 Updated information of genetic polymorphisms

Old information			Updated information			
Gene	Name	Location	Gene	Name	Location	
<i>TREX1</i>	-21282G>C	Promoter	<i>ATRIP</i>	-1477G>C	Promoter	
	-21074A>G	Promoter		-1269A>G	Promoter	
	-20717G>A	Promoter		-912G>A	Promoter	
	-20702A>C	Promoter		-897A>C	Promoter	
	-20260G>C	Promoter		-455G>C	Promoter	
	-20144G>A	Promoter		-339G>A	Promoter	
	-19863G>C	Promoter		-58G>C	Promoter	
	-2753A>G	Intron		17053A>G	Intron9	
	-890C>A	5'utr		<i>TREX1</i>	-725C>A	5'utr
	-389T>C	5'utr			-223T>C	5'utr
	-381C>T	5'utr			-215C>T	5'utr
	531C>T, Tyr177Tyr	Exon16			+696C>T, Y232Y	Exon1
	<i>TREX2</i>	-23386G>C		Promoter	<i>UCHL5IP</i>	-641G>C	Promoter
-14703G>A		Intron4	+8043G>A	Intron4		
-7279C>T		Intron8	+15467C>T	Intron8		
+1747C>T		Exon1 (UTR)	<i>TREX2</i>	-670C>T		Exon1 (UTR)

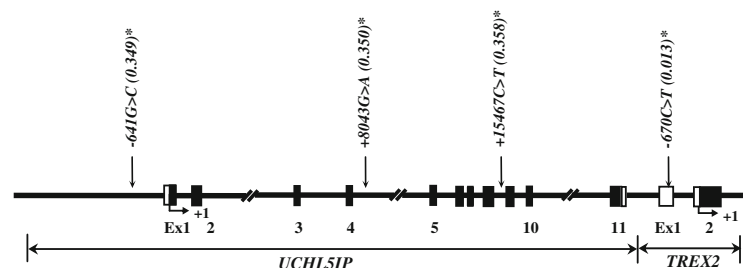
ATRIP ATR (ataxia-telangiectasia and RAD3-related)-interacting protein (MIM # 606605), *TREX1* 3-prime @repair exonuclease 1 (MIM # 606609), *UCHL5IP* UCH37-interacting protein 1 (MIM # 300540), *TREX2* 3-prime @repair exonuclease 1 (MIM # 300370)

A1. Map of *ATRIP/TREX1* on 3p21.3-p21.2 (23 kb)**A2.** LDs among *ATRIP/TREX1* polymorphisms

	ID ¹			
	-455G>C	-223T>C	-215C>T	+696C>T Y177Y
-455G>C	-	0.938	0.514	1
-223T>C	0.735	-	0.423	1
-215C>T	0.001	0.000	-	0.964
+696C>T	0.029	0.024	0.102	-

A3. Haplotypes of *ATRIP/TREX1* polymorphisms

Hap.	-455G>C	-223T>C	-215C>T	+696C>T Y177Y	Freq.
ht1	G	T	C	C	0.588
ht2	G	T	C	T	0.303
ht3	G	T	T	T	0.060
Others*	.	.	.	.	0.048

B1. Map of *UCHL5IP/TREX2* on Xq28 (27 kb)**B2.** LDs among *UCHL5IP/TREX2* polymorphisms

	ID ¹			
	-641G>C	+8043G>A	+15467C>T	-670C>T
-641G>C	-	0.971	0.963	0.682
+8043G>A	0.941	-	1	1
+15467C>T	0.277	0.299	-	1
-670C>T	0.003	0.007	0.007	-

B3. Haplotypes of *UCHL5IP/TREX2* polymorphisms

Hap.	-641G>C	+8043G>A	+15467C>T	-670C>T	Freq.
ht1	G	G	T	C	0.356
ht2	C	A	C	C	0.351
ht3	G	G	C	C	0.272
Others**	.	.	.	.	0.021

Fig. 1 Gene map and haplotypes of *ATRIP/TREX1* and *UCHL5IP/TREX2* genes. Coding exons are marked by black blocks, and 5' and 3' UTRs by white blocks. The first base of the translational start site is denoted as nucleotide +1. Asterisks indicate polymorphisms genotyped in a larger population ($n = 1,053$). The frequencies of polymorphisms not subjected to larger scale genotyping were based on sequence data ($n = 24$). **A1** Polymorphisms of *ATRIP/TREX1* identified on chromosome 3p21.3-p21.2. **A2.** LD coefficients (ID^1 and r^2) among *ATRIP/TREX1* polymorphisms. **A3** Haplotypes of *ATRIP/TREX1* exhibiting frequencies ≥ 0.05 . Others asterisks contain rare haplotypes: CCCC, CTCC, GCCC, and CCTC. **B1** Polymorphisms of *UCHL5IP/TREX2*

identified on chromosome Xq28. **B2.** LD coefficients (ID^1 and r^2) among *UCHL5IP/TREX2* polymorphisms. **B3** Haplotypes of *UCHL5IP/TREX2* exhibiting frequencies ≥ 0.05 . Others double asterisks contain rare haplotypes: GGCT, GACC, CGTC, CGCT, and CGCC. Reference sequences of *ATRIP/TREX1* was based on the genomic contig, NT_022517 and mRNA transcripts, NM_130384 and NM_016381 for *ATRIP* and *TREX1*, respectively. Reference sequences of *UCHL5IP/TREX2* was based on the genomic contig, NT_011726 and mRNA transcripts, NM_207107 and NM_080701 for *UCHL5IP* and *TREX2*, respectively