

Supplementary material

The sequence of WT and Lys694Arg(K694R) TLR4 plasmids

WT TLR4

agatcgctggagacgccatccacgctgtttgacctccatagaagacaccgactctactagaggatcgctagcgctaccg
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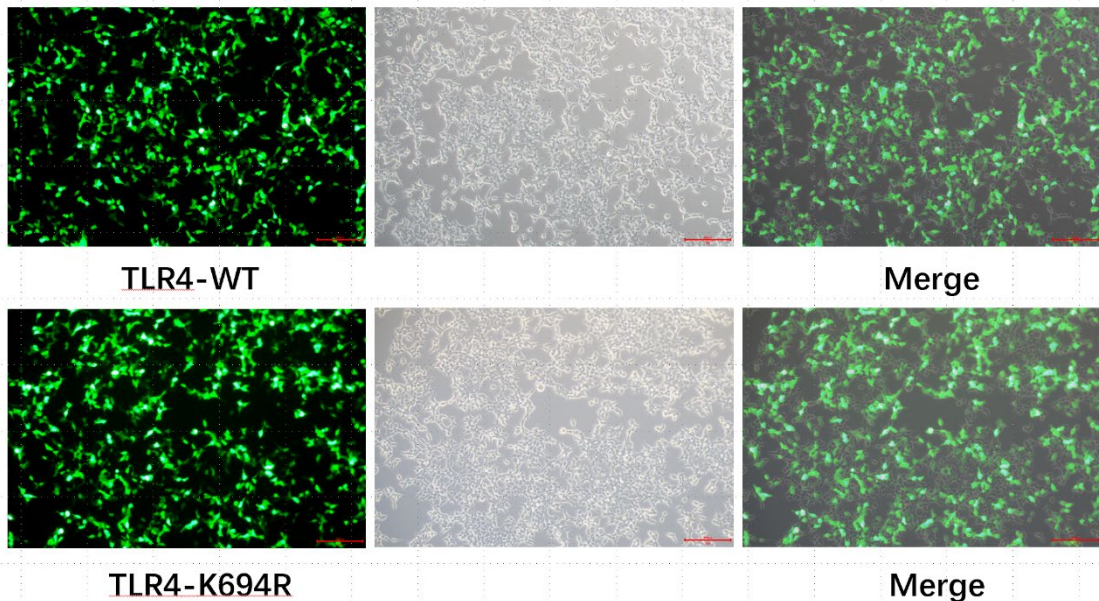
Lys694Arg(K694R) TLR4

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TCTCCTGCGTGAGACCAGAAAGCTGGGAGCCCTGCGTGGAGGTGGTTCCCTAATATT
ACTTATCAATGCATGGAGCTGAATTTCTACAAAATCCCCGACAACCTCCCCTTCTCAA
CCAAGAACCTGGACCTGAGCTTTAATCCCCTGAGGCATTTAGGCAGCTATAGCTTCTT
CAGTTTCCCAGAACTGCAGGTGCTGGATTTATCCAGGTGTGAAATCCAGACAATTGA
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caatcacaagtagcaatacagcagctaccaatgctgattgtgcctggctagaagca

Supplementary Figure

The fluorescent result of transient transfection of TLR4 WT and TLR4 Lys694Arg(K694R) plasmids conjugated with GFP (green fluorescent protein).



Supplementary Table

Distribution of non-synonymous SNPs with natural mutations in the human TLR4 coding region.

Polymorphism ⁱ

Allele TLR4*B (Gly-299, Ile-399) is associated with a blunted response to inhaled LPS. [1 Publication](#)

Natural variant

Feature key	Position(s)	Description	Actions	Graphical view	Length
Natural variant ⁱ (VAR_021977)	175	T → A. Corresponds to variant dbSNP:rs16906079	Ensembl.		1
Natural variant ⁱ (VAR_018729)	188	Q → R 1 Publication Corresponds to variant dbSNP:rs5030713	Ensembl.		1
Natural variant ⁱ (VAR_018730)	246	C → S 1 Publication Corresponds to variant dbSNP:rs5030714	Ensembl.		1
Natural variant ⁱ (VAR_074187)	287	E → D 1 Publication			1
Natural variant ⁱ (VAR_012739)	299	D → G in allele TLR4*B; reduced LPS-response; associated with an increased risk for age-related macular degeneration in Caucasian carriers. 5 Publications Corresponds to variant dbSNP:rs4986790	Ensembl, ClinVar.		1
Natural variant ⁱ (VAR_047563)	306	C → W. Corresponds to variant dbSNP:rs2770145	Ensembl.		1
Natural variant ⁱ (VAR_047564)	310	V → G. Corresponds to variant dbSNP:rs2770144	Ensembl.		1
Natural variant ⁱ (VAR_018731)	329	N → S 1 Publication Corresponds to variant dbSNP:rs5030715	Ensembl.		1
Natural variant ⁱ (VAR_020334)	342	F → Y. Corresponds to variant dbSNP:rs5031050	Ensembl.		1
Natural variant ⁱ (VAR_037668)	385	L → F. Corresponds to variant dbSNP:rs11536884	Ensembl.		1
Natural variant ⁱ (VAR_012740)	399	T → I in allele TLR4*B; reduced LPS-response. 4 Publications Corresponds to variant dbSNP:rs4986791	Ensembl, ClinVar.		1
Natural variant ⁱ (VAR_020335)	400	S → N. Corresponds to variant dbSNP:rs4987233	Ensembl.		1
Natural variant ⁱ (VAR_018732)	443	F → L 1 Publication Corresponds to variant dbSNP:rs5030716	Ensembl.		1
Natural variant ⁱ (VAR_018733)	474	E → K 1 Publication Corresponds to variant dbSNP:rs5030718	Ensembl.		1
Natural variant ⁱ (VAR_018734)	510	Q → H 1 Publication Corresponds to variant dbSNP:rs5030719	Ensembl.		1
Natural variant ⁱ (VAR_018735)	694	K → R 1 Publication Corresponds to variant dbSNP:rs5030722	Ensembl.		1
Natural variant ⁱ (VAR_018736)	763	R → H 1 Publication Corresponds to variant dbSNP:rs5030723	Ensembl.		1
Natural variant ⁱ (VAR_018737)	834	Q → H 1 Publication			1