

Predicting the functional consequences of non-synonymous single nucleotide polymorphisms in *IL8* gene

Tikam Chand Dakal^{1#}, Deepak Kala², Gourav Dhiman², Vinod Yadav³,

Andrey Krokhotin⁴, Nikolay V. Dokholyan⁴

¹Department of Biosciences, Manipal University Jaipur, Dehmi Kalan, Off Jaipur-Ajmer Expressway, Jaipur-303007, Rajasthan (India)

²University Institute of Biopharma Sciences, Chandigarh University, Mohali-140413, Punjab (India)

³Department of Microbiology, Central University of Haryana, Mahendergarh-123029, Haryana (India)

⁴ Department of Biochemistry and Biophysics, University of North Carolina, Chapel Hill, NC 27599, USA

Legends for Supplemental Table

Table 1S. Sequence homology-based prediction of both damaging and tolerated coding nsSNPs in *IL8* gene using SIFT and PROVEAN.

Supplemental Table S1

SNP rsID	Codons	Substitution	SNP Type	SIFT prediction		PROVEAN prediction	
				Prediction	Score	Prediction	Score
rs572157399	ATG-gTG	*1V	Nonsynonymous	Not scored	N/A	N/A	N/A
rs202071309	AAG-AcG	K4T	Nonsynonymous	Damaging	0	Neutral	-2.4
rs563959935	CTG-CaG	L5Q	Nonsynonymous	Damaging	0.01	Deleterious	-3.14
rs200602609	GCC-tCC	A6S	Nonsynonymous	Tolerated	0.42	Neutral	-0.8
rs202202182	GCT-GaT	A8D	Nonsynonymous	Damaging	0	Deleterious	-3.66
rs564043731	CTC-tTC	L9F	Nonsynonymous	Tolerated	0.39	Neutral	-2.35
rs200254616	CTG-CaG	L14Q	Nonsynonymous	Damaging	0	Deleterious	-4.63
rs763622469	GAA-GAc	E21D	Nonsynonymous	Damaging	0	Neutral	-1.47
rs751273843	GGT-aGT	G22S	Nonsynonymous	Tolerated	0.1	Neutral	-1.54
rs767339386	CCA-aCA	P26T	Nonsynonymous	Tolerated	1	Neutral	-0.25
rs199855020	AGT-cGT	S28R	Nonsynonymous	Damaging	0.04	Neutral	-1.13
rs755727808	AAA-tAA	K30*	Nonsynonymous	N/A	N/A	N/A	N/A
rs138567132	GAA-GcA	E31A	Nonsynonymous	Tolerated	0.07	Deleterious	-4.96
rs188378669	GAA-tAA	E31*	Nonsynonymous	N/A	N/A	N/A	N/A

rs188378669	GAA-aAA	E31K	Nonsynonymous	Damaging	0.01	Deleterious	-3.52
rs149273289	CAG-aAG	Q35K	Nonsynonymous	Tolerated	0.15	Neutral	-2.28
rs149273289	CAG-gAG	Q35E	Nonsynonymous	Damaging	0.04	Neutral	-2.17
rs745916337	TAC-cAC	Y40H	Nonsynonymous	Tolerated	1	Neutral	1.17
rs144469788	TCC-aCC	S41T	Nonsynonymous	Tolerated	0.06	Neutral	-1.37
rs749738011	TCC-TaC	S41Y	Nonsynonymous	Damaging	0	Deleterious	-4.27
rs200107073	CCT-CaT	P43H	Nonsynonymous	Tolerated	0.2	Neutral	-2.41
rs139503118	CAC-CgC	H45R	Nonsynonymous	Tolerated	0.12	Deleterious	-5.83
rs774766411	AAA-gAA	K50E	Nonsynonymous	Tolerated	0.38	Neutral	-1.02
rs202114642	ATT-AaT	I55N	Nonsynonymous	Damaging	0.02	Deleterious	-4.15
rs202114642	ATT-AcT	I55T	Nonsynonymous	Tolerated	0.39	Neutral	-1.49
rs765951700	CCA-CtA	P59L	Nonsynonymous	Damaging	0	Deleterious	-9.35
rs373821605	CCA-tCA	P59S	Nonsynonymous	Tolerated	0.3	Deleterious	-7.21
rs147544998	TGC-TGa	C61*	Nonsynonymous	N/A	N/A	N/A	N/A
rs147544998	TGC-TGt	C61C	Synonymous	Tolerated	1	Neutral	0
rs140214046	GCC-aCC	A62T	Nonsynonymous	Tolerated	0.39	Neutral	-0.36
rs140214046	GCC-tCC	A62S	Nonsynonymous	Tolerated	0.42	Neutral	0.48
rs758228010	ACA-cCA	T64P	Nonsynonymous	Damaging	0.01	Deleterious	-3.28
rs142957504	ACA-AgA	T64R	Nonsynonymous	Damaging	0.01	Deleterious	-3.53
rs759032011	AAG-AAa	K69K	Synonymous	Tolerated	0.38	Neutral	0
rs759032011	AAG-AAc	K69N	Nonsynonymous	Damaging	0.01	Neutral	0.1
rs759032011	AAG-AAt	K69N	Nonsynonymous	Damaging	0.01	Neutral	0.1
rs762899923	CTT-CcT	L70P	Nonsynonymous	Damaging	0	Deleterious	-6.4
rs751369405	GAG-GAc	E75D	Nonsynonymous	Damaging	0.05	Neutral	-2.02
rs536774132	TGT-TGa	C77*	Nonsynonymous	N/A	N/A	N/A	N/A
rs373408845	AAC-AAa	N83K	Nonsynonymous	Tolerated	0.31	Neutral	1.01
rs780209935	TGG-TGa	W84*	Nonsynonymous	N/A	N/A	N/A	N/A
rs753921688	AGG-AaG	R87K	Nonsynonymous	Tolerated	1	Neutral	0.63
rs756294837	AGG-AGa	R87R	Synonymous	Tolerated	0.67	Neutral	0

rs756294837	AGG-AGc	R87S	Nonsynonymous	Damaging	0.02	Neutral	-2.21
rs779068762	GTT-GcT	V88A	Nonsynonymous	Damaging	0	Deleterious	-3.4
rs779068762	GTT-GaT	V88D	Nonsynonymous	Damaging	0	Deleterious	-5.6
rs200662278	TTG-TaG	L93*	Nonsynonymous	N/A	N/A	N/A	N/A
rs185040023	AAG-AgG	K94R	Nonsynonymous	Tolerated	0.19	Neutral	-1.48
rs200005090	GCT-GtT	A96V	Nonsynonymous	Tolerated	0.11	Neutral	-1.3
rs201643630	TAA-TtA	*100L	Nonsynonymous	Not scored	N/A	N/A	N/A