

LDLR Structural Conservation Scores

1 M	0.175
2 G	0.113
3 P	0.108
4 W	0.121
5 G	0.111
6 W	0.113
7 K	0.132
8 L	0.121
9 R	0.157
10 W	0.114
11 T	0.127
12 V	0.153
13 A	0.162
14 L	0.188
15 L	0.174
16 L	0.152
17 A	0.185
18 A	0.186
19 A	0.196
20 G	0.186
21 T	0.163
22 A	0.196
23 V	0.241
24 G	0.354
25 D	0.394
26 R	0.464
27 C	0.909
28 E	0.49
29 R	0.402
30 N	0.494
31 E	0.65
32 F	0.904
33 Q	0.449
34 C	0.942
35 Q	0.388
36 D	0.686
37 G	0.926
38 K	0.555
39 C	0.973
40 I	0.789
41 S	0.544
42 Y	0.354
43 K	0.742
44 W	0.973
45 V	0.421
46 C	0.973
47 D	0.973
48 G	0.917
49 S	0.49

50 A	0.452
51 E	0.839
52 C	0.973
53 Q	0.416
54 D	0.973
55 G	0.82
56 S	0.85
57 D	0.973
58 E	0.973
59 S	0.576
60 Q	0.387
61 E	0.553
62 T	0.711
63 C	0.973
64 L	0.375
65 S	0.471
66 V	0.43
67 T	0.747
68 C	0.98
69 K	0.438
70 S	0.524
71 G	0.555
72 D	0.58
73 F	0.738
74 S	0.664
75 C	1
76 G	0.922
77 G	0.608
78 R	0.443
79 V	0.439
80 N	0.553
81 R	0.65
82 C	1
83 I	0.799
84 P	0.739
85 Q	0.378
86 F	0.669
87 W	1
88 R	0.768
89 C	1
90 D	1
91 G	0.847
92 Q	0.634
93 V	0.43
94 D	0.99
95 C	1
96 D	0.713
97 N	0.719
98 G	0.871
99 S	0.625

100 D	1
101 E	1
102 Q	0.423
103 G	0.507
104 C	1
105 P	0.52
106 P	0.48
107 K	0.497
108 T	0.512
109 C	1
110 S	0.515
111 Q	0.45
112 D	0.553
113 E	0.752
114 F	0.97
115 R	0.54
116 C	1
117 H	0.404
118 D	0.675
119 G	0.74
120 K	0.604
121 C	0.973
122 I	0.682
123 S	0.616
124 R	0.42
125 Q	0.364
126 F	0.885
127 V	0.918
128 C	0.975
129 D	0.906
130 S	0.549
131 D	0.869
132 R	0.491
133 D	0.962
134 C	0.975
135 L	0.402
136 D	0.975
137 G	0.921
138 S	0.956
139 D	0.975
140 E	0.975
141 A	0.396
142 S	0.419
143 C	1
144 P	0.543
145 V	0.42
146 L	0.653
147 T	0.786
148 C	1
149 G	0.647

150 P	0.715
151 A	0.449
152 S	0.465
153 F	0.895
154 Q	0.688
155 C	1
156 N	0.645
157 S	0.492
158 S	0.711
159 T	0.412
160 C	1
161 I	0.865
162 P	0.938
163 Q	0.389
164 L	0.527
165 W	1
166 A	0.493
167 C	1
168 D	1
169 N	0.669
170 D	0.799
171 P	0.438
172 D	1
173 C	1
174 E	0.439
175 D	1
176 G	0.566
177 S	0.952
178 D	0.987
179 E	1
180 W	0.369
181 P	0.497
182 Q	0.62
183 R	0.458
184 C	0.975
185 R	0.513
186 G	0.536
187 L	0.414
188 Y	0.379
189 V	0.138
190 F	0.185
191 Q	0.173
192 G	0.29
193 D	0.374
194 S	0.414
195 S	0.467
196 P	0.454
197 C	0.804
198 S	0.598
199 A	0.495

200 F	0.378
201 E	0.831
202 F	0.88
203 H	0.525
204 C	1
205 L	0.503
206 S	0.754
207 G	0.807
208 E	0.899
209 C	1
210 I	0.792
211 H	0.847
212 S	0.397
213 S	0.539
214 W	1
215 R	0.606
216 C	1
217 D	1
218 G	0.899
219 G	0.685
220 P	0.416
221 D	1
222 C	1
223 K	0.823
224 D	0.985
225 K	0.73
226 S	0.931
227 D	1
228 E	0.991
229 E	0.447
230 N	0.649
231 C	1
232 A	0.523
233 V	0.454
234 A	0.412
235 T	0.781
236 C	0.959
237 R	0.716
238 P	0.617
239 D	0.867
240 E	0.788
241 F	0.979
242 Q	0.871
243 C	1
244 S	0.497
245 D	0.936
246 G	0.93
247 N	0.623
248 C	1
249 I	0.837

250 H	0.625
251 G	0.839
252 S	0.539
253 R	0.646
254 Q	0.758
255 C	1
256 D	0.721
257 R	0.568
258 E	0.506
259 Y	0.548
260 D	0.965
261 C	1
262 K	0.448
263 D	1
264 M	0.371
265 S	1
266 D	1
267 E	1
268 V	0.439
269 G	0.81
270 C	1
271 V	0.505
272 N	0.664
273 V	0.46
274 T	0.482
275 L	0.271
276 C	0.642
277 E	0.447
278 G	0.546
279 P	0.478
280 N	0.278
281 K	0.45
282 F	0.642
283 K	0.43
284 C	0.642
285 H	0.35
286 S	0.422
287 G	0.626
288 E	0.576
289 C	0.642
290 I	0.632
291 T	0.321
292 L	0.297
293 D	0.385
294 K	0.526
295 V	0.628
296 C	0.642
297 N	0.463
298 M	0.315
299 A	0.28

300 R	0.48
301 D	0.625
302 C	0.642
303 R	0.371
304 D	0.608
305 W	0.425
306 S	0.57
307 D	0.642
308 E	0.642
309 P	0.642
310 I	0.258
311 K	0.491
312 E	0.508
313 C	0.642
314 G	0.656
315 T	0.454
316 N	0.971
317 E	1
318 C	1
319 L	0.581
320 D	0.436
321 N	0.834
322 N	0.851
323 G	0.964
324 G	1
325 C	1
326 S	0.977
327 H	0.966
328 V	0.708
329 C	1
330 N	0.454
331 D	0.987
332 L	0.622
333 K	0.646
334 I	0.89
335 G	0.982
336 Y	0.727
337 E	0.764
338 C	1
339 L	0.403
340 C	1
341 P	0.782
342 D	0.473
343 G	1
344 F	0.795
345 Q	0.609
346 L	1
347 V	0.612
348 A	0.847
349 Q	0.566

350 R	0.728
351 R	0.585
352 C	1
353 E	0.66
354 D	1
355 I	0.964
356 D	0.845
357 E	1
358 C	1
359 Q	0.553
360 D	0.574
361 P	0.922
362 D	0.785
363 T	0.636
364 C	1
365 S	0.941
366 Q	1
367 L	0.705
368 C	1
369 V	0.72
370 N	1
371 L	0.594
372 E	0.527
373 G	1
374 G	0.49
375 Y	0.85
376 K	1
377 C	1
378 Q	0.814
379 C	1
380 E	0.401
381 E	0.507
382 G	1
383 F	0.866
384 Q	0.585
385 L	0.675
386 D	0.947
387 P	0.788
388 H	0.418
389 T	0.817
390 K	0.679
391 A	0.52
392 C	1
393 K	0.978
394 A	0.947
395 V	0.243
396 G	0.917
397 S	0.47
398 I	0.497
399 A	0.637

400 Y	0.562
401 L	0.978
402 F	0.551
403 F	0.953
404 T	0.908
405 N	0.897
406 R	0.933
407 H	0.886
408 E	0.844
409 V	0.788
410 R	0.989
411 K	0.799
412 M	0.71
413 T	0.551
414 L	0.9
415 D	0.495
416 R	0.718
417 S	0.585
418 E	0.789
419 Y	0.902
420 T	0.629
421 S	0.525
422 L	0.694
423 I	0.737
424 P	0.663
425 N	0.436
426 L	0.765
427 R	0.848
428 N	0.91
429 V	0.672
430 V	0.887
431 A	0.981
432 L	0.937
433 D	0.982
434 T	0.514
435 E	0.726
436 V	0.725
437 A	0.654
438 S	0.523
439 N	0.741
440 R	0.642
441 I	0.756
442 Y	0.808
443 W	1
444 S	0.645
445 D	0.986
446 L	0.737
447 S	0.55
448 Q	0.561
449 R	0.659

450 M	0.749
451 I	0.969
452 C	0.854
453 S	0.875
454 T	0.711
455 Q	0.362
456 L	0.691
457 D	0.724
458 R	0.512
459 A	0.764
460 H	0.433
461 G	0.498
462 V	0.38
463 S	0.399
464 S	0.382
465 Y	0.577
466 D	0.435
467 T	0.537
468 V	0.671
469 I	0.803
470 S	0.569
471 R	0.366
472 D	0.382
473 I	0.678
474 Q	0.551
475 A	0.569
476 P	0.946
477 D	0.606
478 G	0.931
479 L	0.787
480 A	0.98
481 V	0.858
482 D	0.973
483 W	0.973
484 I	0.751
485 H	0.821
486 S	0.478
487 N	0.726
488 I	0.803
489 Y	0.98
490 W	0.958
491 T	0.878
492 D	0.978
493 S	0.827
494 V	0.483
495 L	0.398
496 G	0.547
497 T	0.719
498 V	0.822
499 S	0.906

500 V	0.935
501 A	0.885
502 D	0.513
503 T	0.509
504 K	0.584
505 G	0.878
506 V	0.392
507 K	0.733
508 R	0.863
509 K	0.662
510 T	0.655
511 L	0.941
512 F	0.639
513 R	0.433
514 E	0.484
515 N	0.529
516 G	0.581
517 S	0.64
518 K	0.633
519 P	0.97
520 R	0.895
521 A	0.737
522 I	0.987
523 V	0.666
524 V	0.85
525 D	0.949
526 P	0.978
527 V	0.47
528 H	0.548
529 G	0.852
530 F	0.871
531 M	0.843
532 Y	0.924
533 W	0.974
534 T	0.665
535 D	0.945
536 W	0.937
537 G	0.958
538 T	0.401
539 P	0.521
540 A	0.889
541 K	0.893
542 I	0.957
543 K	0.734
544 K	0.915
545 G	0.57
546 G	1
547 L	0.819
548 N	0.935
549 G	1

550 V	0.724
551 D	0.855
552 I	0.566
553 Y	0.471
554 S	0.484
555 L	0.94
556 V	0.948
557 T	0.628
558 E	0.666
559 N	0.574
560 I	0.898
561 Q	0.594
562 W	0.918
563 P	1
564 N	0.961
565 G	0.973
566 I	0.886
567 T	0.941
568 L	0.957
569 D	1
570 L	0.784
571 L	0.472
572 S	0.598
573 G	0.507
574 R	0.972
575 L	0.968
576 Y	0.99
577 W	1
578 V	0.936
579 D	1
580 S	0.924
581 K	0.983
582 L	0.975
583 H	0.963
584 S	0.457
585 I	0.721
586 S	0.806
587 S	0.934
588 I	0.76
589 D	0.905
590 V	0.613
591 N	0.729
592 G	1
593 G	0.611
594 N	0.69
595 R	1
596 K	0.761
597 T	0.542
598 I	0.588
599 L	0.738

600 E	0.46
601 D	0.635
602 E	0.411
603 K	0.488
604 R	0.417
605 L	0.95
606 A	0.579
607 H	1
608 P	1
609 F	0.82
610 S	0.618
611 L	0.75
612 A	0.71
613 V	0.791
614 F	0.94
615 E	0.963
616 D	0.906
617 K	0.644
618 V	0.804
619 F	0.812
620 W	1
621 T	0.968
622 D	1
623 I	0.444
624 I	0.472
625 N	0.619
626 E	0.672
627 A	0.928
628 I	0.822
629 F	0.746
630 S	0.718
631 A	0.929
632 N	0.865
633 R	0.878
634 L	0.764
635 T	0.704
636 G	0.888
637 S	0.406
638 D	0.788
639 V	0.732
640 N	0.419
641 L	0.412
642 L	0.696
643 A	0.88
644 E	0.695
645 N	0.637
646 L	0.948
647 L	0.457
648 S	0.537
649 P	0.906

650 E	0.475
651 D	0.881
652 M	0.786
653 V	0.771
654 L	0.683
655 F	0.805
656 H	0.972
657 N	0.535
658 L	0.634
659 T	0.528
660 Q	0.953
661 P	0.922
662 R	0.512
663 G	0.732
664 V	0.445
665 N	0.74
666 W	0.454
667 C	0.985
668 E	0.587
669 R	0.361
670 T	0.478
671 T	0.322
672 L	0.401
673 S	0.432
674 N	0.917
675 G	0.933
676 G	0.901
677 C	1
678 Q	0.665
679 Y	0.848
680 L	0.937
681 C	1
682 L	1
683 P	0.714
684 A	1
685 P	0.988
686 Q	0.831
687 I	0.872
688 N	0.578
689 P	0.422
690 H	0.776
691 S	0.985
692 P	0.912
693 K	0.891
694 F	0.803
695 T	0.903
696 C	1
697 A	0.811
698 C	0.987
699 P	0.977

700 D	0.869
701 G	0.611
702 M	0.709
703 L	0.304
704 L	0.989
705 A	0.632
706 R	0.463
707 D	0.914
708 M	0.767
709 R	0.765
710 S	0.484
711 C	1
712 L	0.41
713 T	0.396
714 E	0.326
715 A	0.405
716 E	0.311
717 A	0.389
718 A	0.383
719 V	0.299
720 A	0.43
721 T	0.508
722 Q	0.309
723 E	0.241
724 T	0.376
725 S	0.362
726 T	0.445
727 V	0.266
728 R	0.335
729 L	0.303
730 K	0.255
731 V	0.297
732 S	0.268
733 S	0.293
734 T	0.36
735 A	0.283
736 V	0.326
737 R	0.244
738 T	0.247
739 Q	0.308
740 H	0.27
741 T	0.316
742 T	0.363
743 T	0.217
744 R	0.204
745 P	0.278
746 V	0.236
747 P	0.342
748 D	0.262
749 T	0.32

750 S	0.257
751 R	0.26
752 L	0.229
753 P	0.29
754 G	0.243
755 A	0.321
756 T	0.292
757 P	0.448
758 G	0.301
759 L	0.293
760 T	0.377
761 T	0.408
762 V	0.28
763 E	0.3
764 I	0.247
765 V	0.283
766 T	0.319
767 M	0.221
768 S	0.409
769 H	0.324
770 Q	0.326
771 A	0.202
772 L	0.241
773 G	0.337
774 D	0.312
775 V	0.202
776 A	0.303
777 G	0.239
778 R	0.253
779 G	0.143
780 N	0.113
781 E	0.166
782 K	0.39
783 K	0.358
784 P	0.387
785 S	0.322
786 S	0.437
787 V	0.446
788 R	0.409
789 A	0.487
790 L	0.644
791 S	0.367
792 I	0.658
793 V	0.585
794 L	0.546
795 P	0.794
796 I	0.64
797 V	0.545
798 L	0.602
799 L	0.523

800 V	0.432
801 F	0.745
802 L	0.613
803 C	0.495
804 L	0.418
805 G	0.685
806 V	0.517
807 F	0.559
808 L	0.752
809 L	0.565
810 W	0.863
811 K	0.745
812 N	0.743
813 W	0.851
814 R	0.696
815 L	0.482
816 K	0.734
817 N	0.694
818 I	0.574
819 N	0.609
820 S	0.841
821 I	0.702
822 N	0.782
823 F	0.919
824 D	0.879
825 N	0.899
826 P	0.919
827 V	0.891
828 Y	0.909
829 Q	0.589
830 K	0.919
831 T	0.897
832 T	0.872
833 E	0.782
834 D	0.83
835 E	0.737
836 V	0.554
837 H	0.754
838 I	0.859
839 C	0.476
840 H	0.778
841 N	0.5
842 Q	0.473
843 D	0.401
844 G	0.796
845 Y	0.623
846 S	0.438
847 Y	0.784
848 P	0.753
849 S	0.439

850 R	0.521
851 Q	0.368
852 M	0.378
853 V	0.526
854 S	0.592
855 L	0.484
856 E	0.573
857 D	0.592
858 D	0.441
859 V	0.335
860 A	0.363

Table S3 Legend

Structural conservation scores generated as outlined in Usifo E, Leigh SEA, Whittall RA, Lench N, Taylor A, Yeats C, et al. Low-Density Lipoprotein Receptor Gene Familial Hypercholesterolemia Variant Database: Update and Pathological Assessment. *Ann Hum Genet.* 2012;76(5):387–401.