

Table S3 The correlations between the number of synonymous codons and amino acid usage frequencies in the 50 different GC% groups.

GC%	R ²		GC%	R ²	
	All	Less variable		All	Less variable
0.304	0.111	0.619 **	0.553	0.667 **	0.747 **
0.313	0.128	0.627 **	0.563	0.673 **	0.749 **
0.324	0.149	0.633 **	0.573	0.677 **	0.749 **
0.333	0.167	0.630 **	0.583	0.677 **	0.751 **
0.344	0.192	0.644 **	0.593	0.673 **	0.749 **
0.353	0.217 *	0.651 **	0.603	0.672 **	0.748 **
0.364	0.245 *	0.659 **	0.613	0.662 **	0.744 **
0.373	0.280 *	0.670 **	0.623	0.657 **	0.738 **
0.384	0.312 *	0.677 **	0.633	0.645 **	0.727 **
0.393	0.349 **	0.687 **	0.643	0.633 **	0.717 **
0.403	0.385 **	0.694 **	0.653	0.620 **	0.706 **
0.413	0.423 **	0.706 **	0.663	0.610 **	0.695 **
0.423	0.457 **	0.712 **	0.673	0.595 **	0.682 **
0.433	0.493 **	0.723 **	0.683	0.584 **	0.673 **
0.443	0.520 **	0.726 **	0.693	0.574 **	0.669 **
0.453	0.546 **	0.732 **	0.703	0.559 **	0.662 **
0.463	0.568 **	0.737 **	0.713	0.549 **	0.658 **
0.473	0.585 **	0.739 **	0.723	0.534 **	0.656 **

0.483	0.600 **	0.742 **	0.733	0.521 **	0.659 **
0.493	0.613 **	0.743 **	0.743	0.508 **	0.664 **
0.503	0.625 **	0.746 **	0.753	0.493 **	0.666 **
0.513	0.636 **	0.746 **	0.763	0.479 **	0.679 **
0.523	0.641 **	0.740 **	0.773	0.461 **	0.689 **
0.533	0.654 **	0.745 **	0.783	0.448 **	0.704 **
0.543	0.661 **	0.746 **	0.793	0.429 **	0.719 **

“All” and “Less variable” represent all amino acids and the 11 less-variable ones, respectively. * and ** indicate $P < 0.05$ and $P < 0.01$ significance levels for R^2 , respectively.