

	Strain	Mean at 15°C	Variance at 15°C	Mean at 26°C	Variance at 26°C	K-S test p-value
<i>C. elegans</i> full-length	strain 1 (in Figure 3)	0.706	0.146	0.635	0.311	0.2403
	strain 2	1.020	0.340	0.771	0.154	0.0086
<i>C. elegans</i> proximal	strain 1 (in Figure 3)	1.756	1.023	1.215	0.478	0.0094
	strain 2	1.608	0.726	0.769	0.155	1.2×10 ⁻⁶
<i>C. briggsae</i> full-length	strain 1 (in Figure 3)	0.762	0.151	0.680	0.163	0.0738
	strain 2	1.034*	0.170*	0.455	0.051	2.3×10 ⁻⁹
<i>C. briggsae</i> proximal	strain 1 (in Figure 3)	2.188	0.848	1.025	0.415	2.8×10 ⁻⁹
	strain 2	2.364	1.151	0.900	0.321	1.3×10 ⁻¹⁰
	strain 3	1.947	1.325	1.279	0.364	0.0120
Cel distal::Cbr proximal	strain 1 (in Figure 4)	1.013	0.449	0.565	0.113	0.0020
	strain 2	1.302	0.556	0.619	0.244	2.3×10 ⁻⁵
extended conservation	strain 1 (in Figure 4)	1.262	0.515	0.664	0.111	5.6×10 ⁻⁵
	strain 2	1.689	0.385	0.933	0.384	2.7×10 ⁻⁴
	strain 3	1.239	0.509	0.772	0.270	6.8×10 ⁻⁴
<i>unc-15</i> distal:: <i>unc-47</i> proximal	strain 1 (in Figure 5)	1.164	0.475	0.495	0.078	5.2×10 ⁻⁷
	strain 2	1.059	0.596	0.562	0.115	7.8×10 ⁻⁴

*1.155351 and 0.7812112 if including outlier

Table S2. Comparisons of variation of all strains at 15°C and 26°C. Values in columns 3 to 6 represent the distribution of geometric distances between all data points for a particular strain/treatment and the mean of that strain/treatment. K-S=Kolmogorov – Smirnov test.