Fourier Spectral Analysis of Coding Sequences

Automated Report

November 20, 2025

Contents

1 Group 1: Single Peak at 0.33

1.1 SCFR_NC_060933.1_395542_400771

1.1.1 Protein: frame2

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5229 bp
Protein Description:
Stop-codon-free region (395542-400771)

Figure 1: FFT Spectrum for frame2

Frequency	Motifs
0.333	CAC (1300), CCA (1288), ACC (1287), CCT (283), TCC (282)

1.2 SCFR_NC_060933.1_395516_400868

1.2.1 Protein: frame-2

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5352 bp
Protein Description:
Stop-codon-free region (395516-400868)

Figure 2: FFT Spectrum for frame-2

Frequency	Motifs
0.333	CAC (1317), CCA (1307), ACC (1304), CCT (288), TCC (287)

1.3 SCFR_NC_060933.1_395486_400679

1.3.1 Protein: frame3

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5193 bp
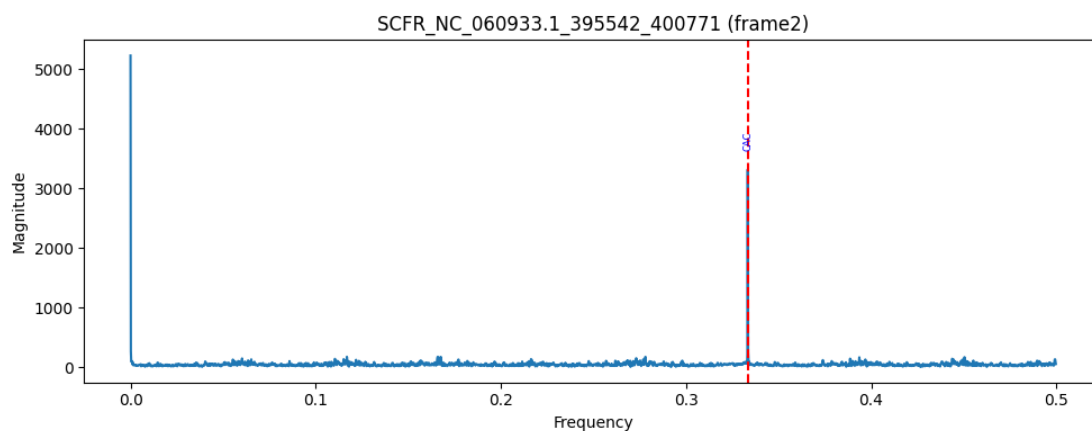**Protein Description**:
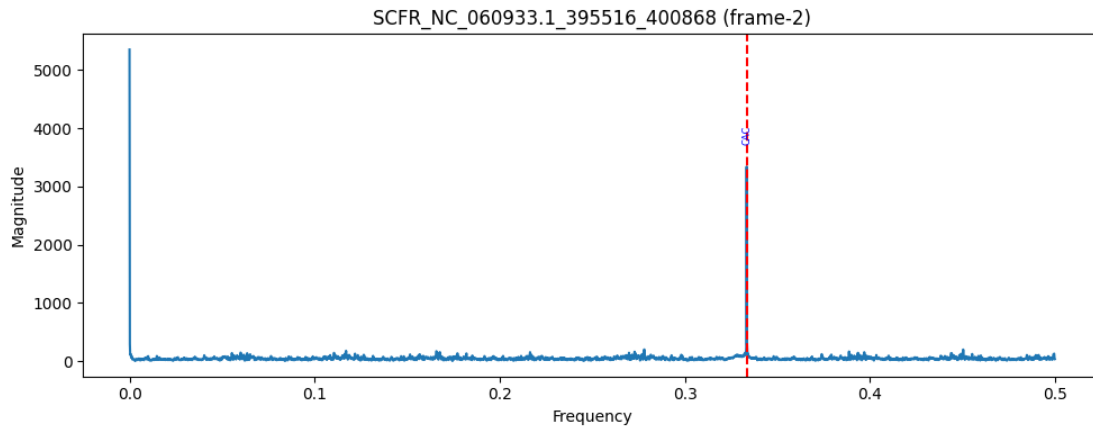Stop-codon-free region (395486-400679)

Figure 3: FFT Spectrum for frame3

Frequency	Motifs
0.333	CAC (1294), CCA (1285), ACC (1282), CCT (276), TCC (275)

1.4 SCFR_NC_060933.1_395493_400890

1.4.1 Protein: frame1

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5397 bp
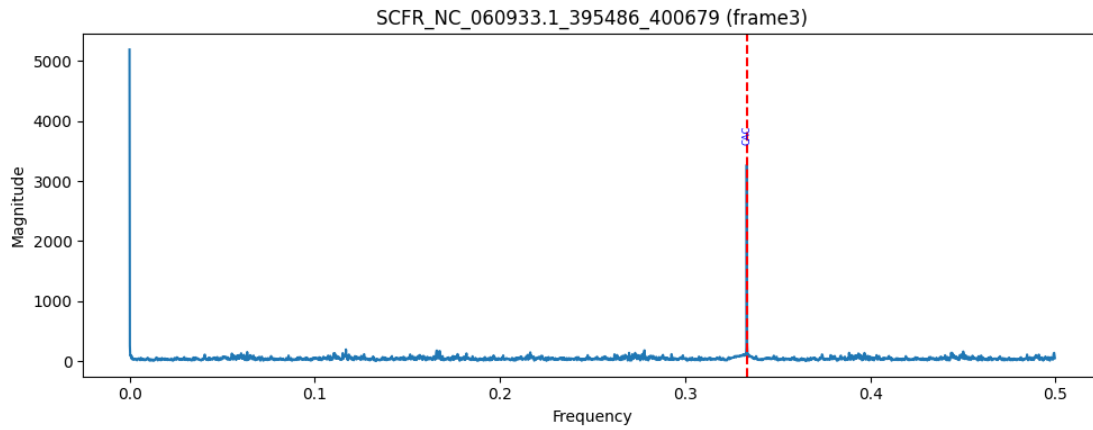**Protein Description**:
Stop-codon-free region (395493-400890)

Figure 4: FFT Spectrum for frame1

Frequency	Motifs
0.333	CAC (1320), CCA (1310), ACC (1308), CCT (288), TCC (287)

1.5 SCFR_NC_060933.1_395577_400893

1.5.1 Protein: frame-1

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5316 bp
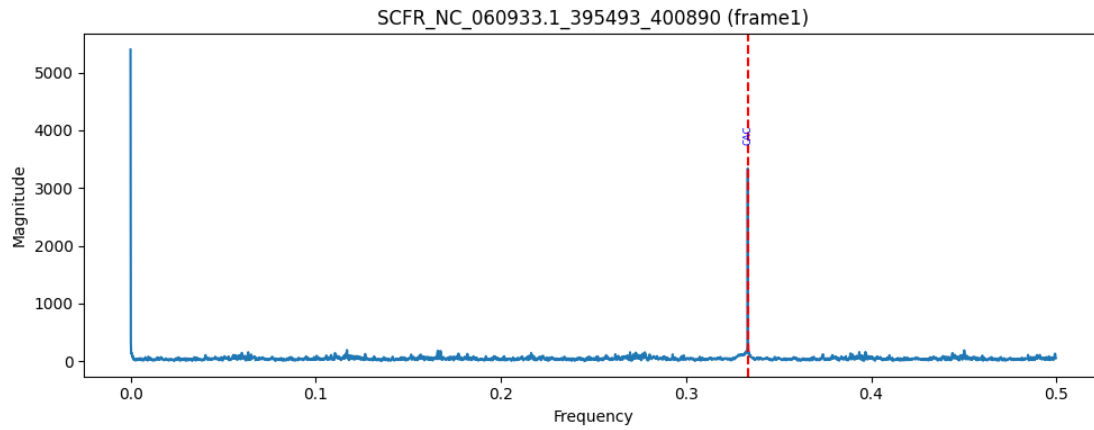**Protein Description**:
Stop-codon-free region (395577-400893)

Figure 5: FFT Spectrum for frame-1

Frequency	Motifs
0.333	CAC (1312), CCA (1299), ACC (1299), CCT (287), TCC (285)

2 Group 2: Single Peak Elsewhere

3 Group 3: Multiple Peaks

3.1 SCFR_NC_060933.1_77562595_77568433

3.1.1 Protein: frame2

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5838 bp
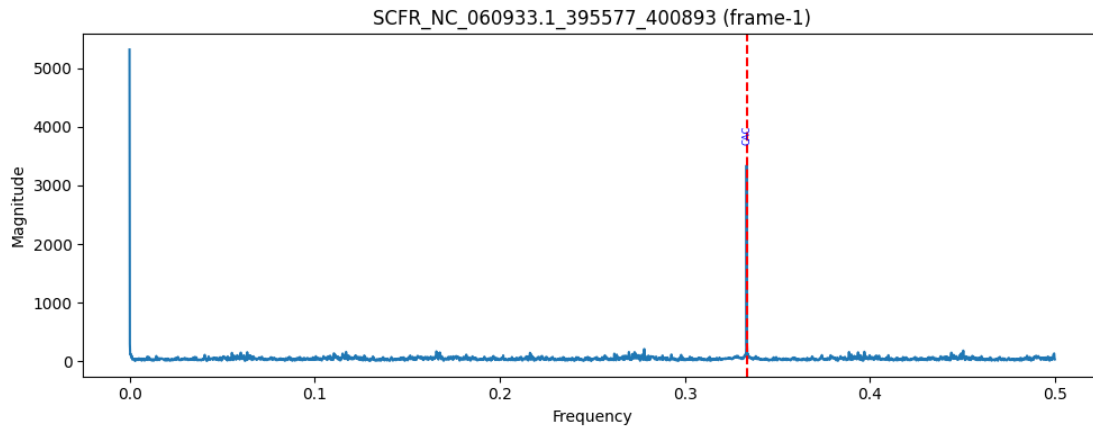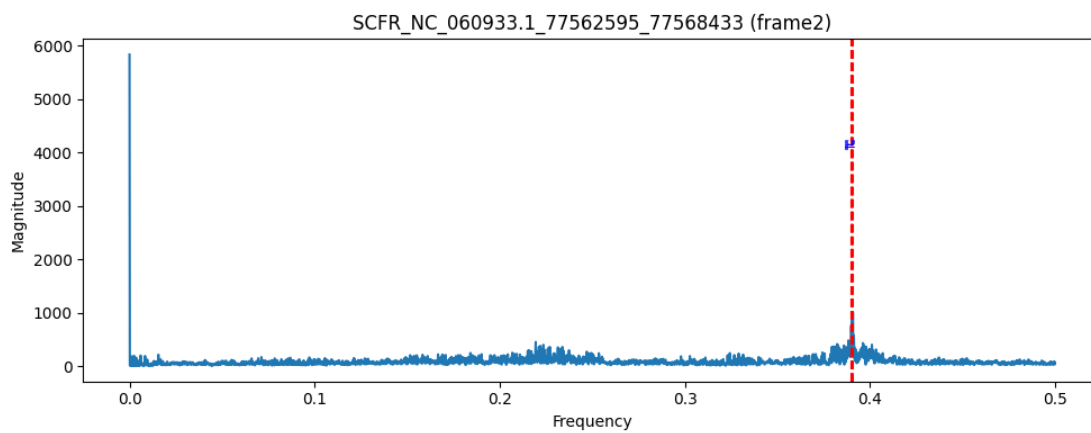**Protein Description**:
Stop-codon-free region (77562595-77568433)

Figure 6: FFT Spectrum for frame2

Frequency	Motifs
0.391	TC (1468), AT (1225), TT (1165), CA (1131), CT (398)
0.39	TC (1468), AT (1225), TT (1165), CA (1131), CT (398)
0.39	TC (1468), AT (1225), TT (1165), CA (1131), CT (398)

3.2 SCFR_NC_060933.1_44806122_44812923

3.2.1 Protein: frame-1

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 6801 bp
Protein Description:
Stop-codon-free region (44806122-44812923)

Figure 7: FFT Spectrum for frame-1

Frequency	Motifs
0.39	GA (1693), AT (1408), AA (1371), TG (1303), AG (469)
0.389	GA (1693), AT (1408), AA (1371), TG (1303), AG (469)
0.389	GA (1693), AT (1408), AA (1371), TG (1303), AG (469)

3.3 SCFR_NC_060933.1_40576219_40581328

3.3.1 Protein: frame-3

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5109 bp
Protein Description:
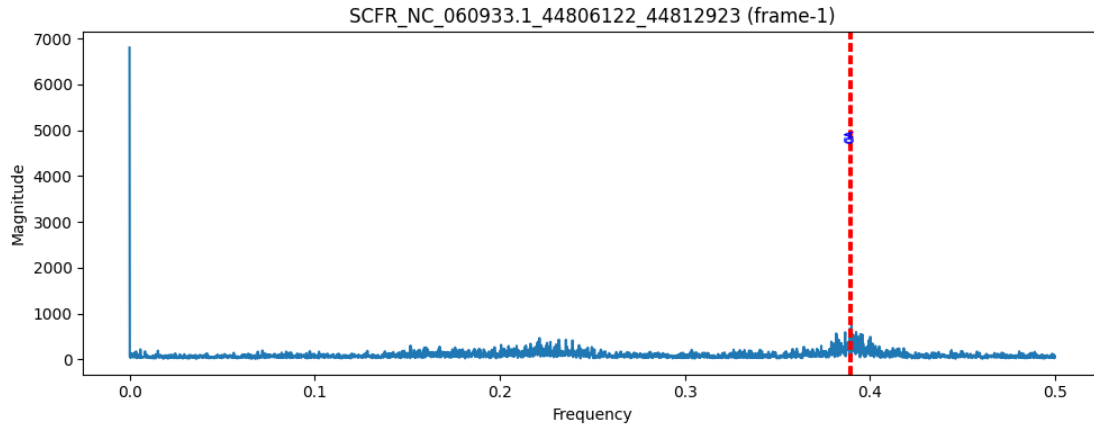Stop-codon-free region (40576219-40581328)

Figure 8: FFT Spectrum for frame-3

Frequency	Motifs
0.391	GA (1269), AA (1053), AT (1041), TG (957), AG (364)
0.382	GA (1269), AA (1053), AT (1041), TG (957), AG (364)
0.391	GA (1269), AA (1053), AT (1041), TG (957), AG (364)

3.4 SCFR_NC_060933.1_79978486_79984003

3.4.1 Protein: frame-3

Gene ID: SCFR
Nucleotide Accession: NC_060933.1
Sequence Length: 5517 bp
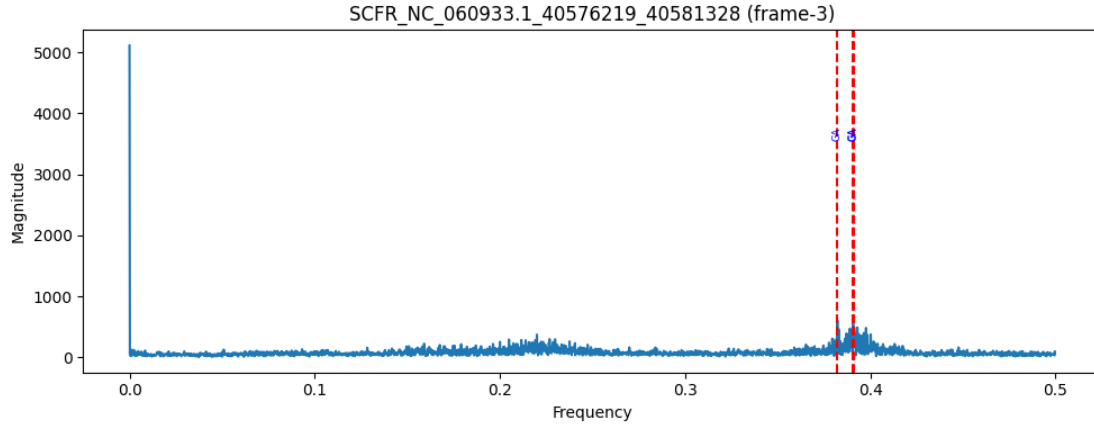**Protein Description**:
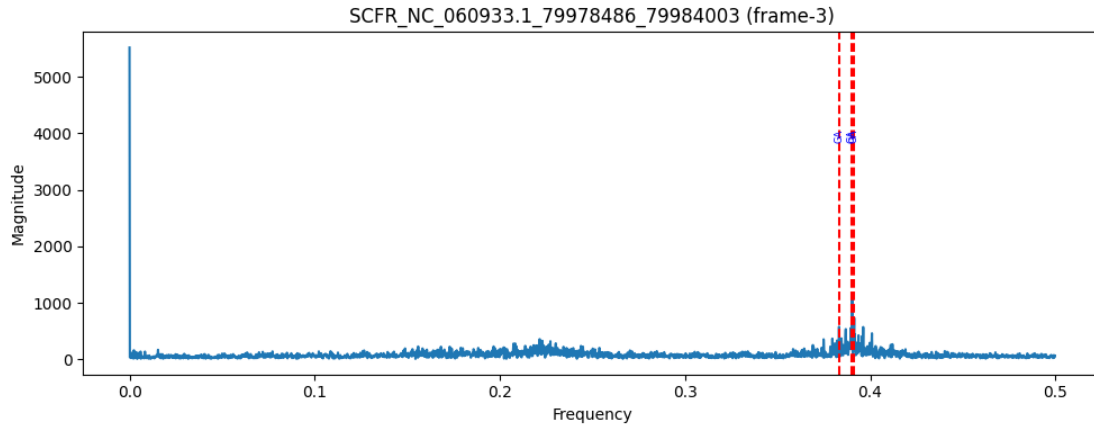Stop-codon-free region (79978486-79984003)

Figure 9: FFT Spectrum for frame-3

Frequency	Motifs
0.39	GA (1377), AT (1138), AA (1120), TG (1050), AG (386)
0.391	GA (1377), AT (1138), AA (1120), TG (1050), AG (386)
0.383	GA (1377), AT (1138), AA (1120), TG (1050), AG (386)