Fourier Spectral Analysis of Coding Sequences

Automated Report

November 20, 2025

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1 Group 1: Single Peak at 0.33

2 Group 2: Single Peak Elsewhere

3 Group 3: Multiple Peaks

3.1 SCFR_NC_060934.1_1232284_1239049

3.1.1 Protein: frame2

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 6765 bp
Protein Description:
Stop-codon-free region (1232284-1239049)

Figure 1: FFT Spectrum for frame2

Frequency	
0.083	GGTGTTTACTCC (264), GTGTTTACTCCC (264), TCCCGG
0.042	CCTCCCGGTGTTTACTCCCCTCT (165), CTCCCTCCCGGTGTTTACTCCCC (120), CTGCCTCCCGG
0.125	TCCCGGTG (267), CCCGGTGT (266), CCGG

3.2 SCFR_NC_060934.1_131972693_131978090

3.2.1 Protein: frame-2

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 5397 bp
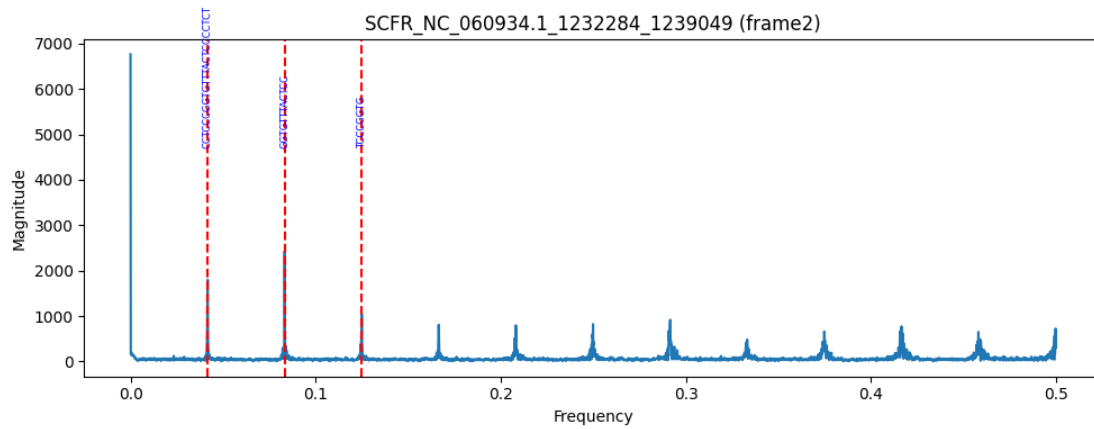**Protein Description**:
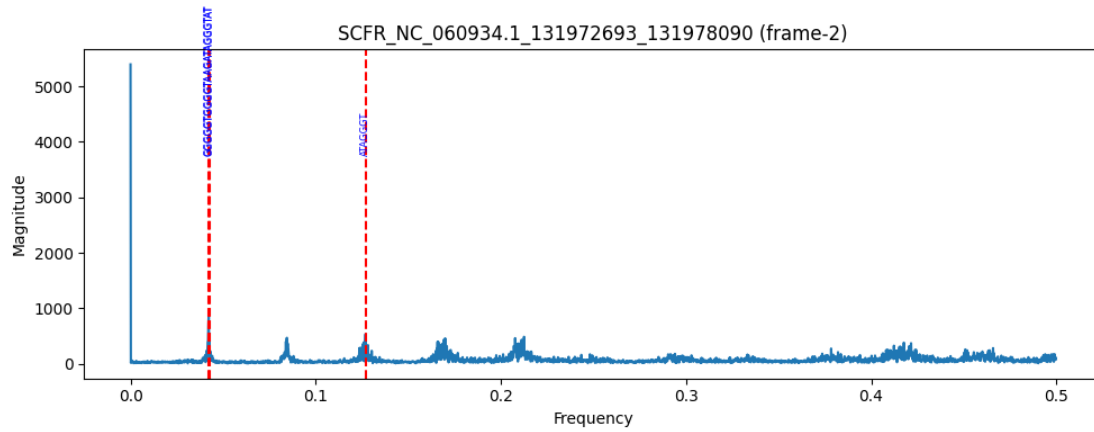Stop-codon-free region (131972693-131978090)

Figure 2: FFT Spectrum for frame-2

Frequency	
0.042	GGGGGTGGGGTAAGATAGGGTAT (123), TGGGGTAAGATAGGGTATGGGGG (121), GTGGGGTAAG
0.043	GGGGGTGGGGTAAGATAGGGTAT (123), TGGGGTAAGATAGGGTATGGGGG (121), GTGGGGTAAG
0.127	ATAGGGT (226), TAAGATA (225), AA

3.3   SCFR_NC_060934.1_133769541_133774647

3.3.1   Protein: frame-1

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 5106 bp
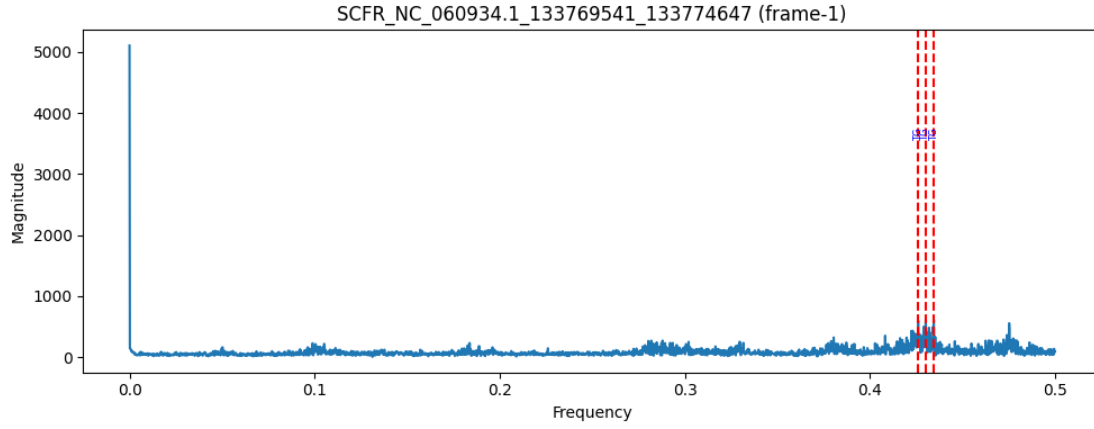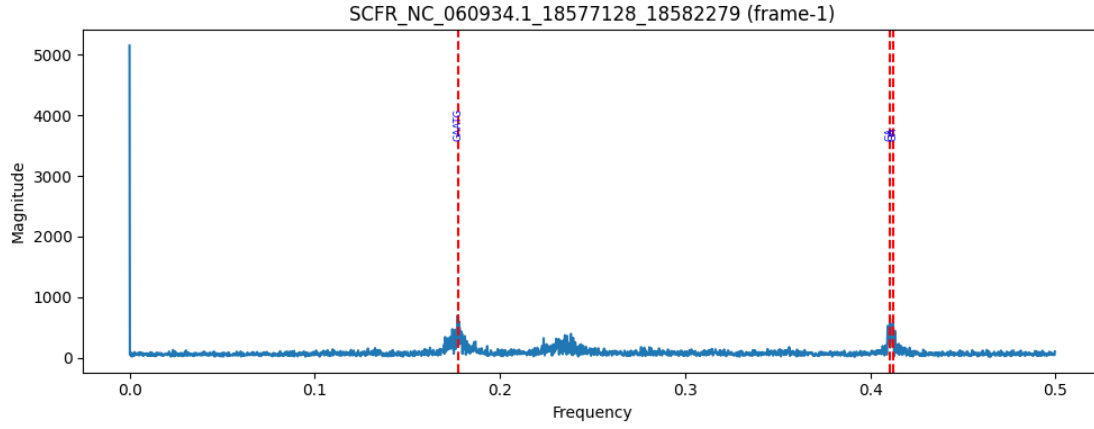**Protein Description**:
Stop-codon-free region (133769541-133774647)

Figure 3: FFT Spectrum for frame-1

Frequency	Motifs
0.434	TG (1937), GT (1266), GC (552), CT (494), GA (280)
0.43	TG (1937), GT (1266), GC (552), CT (494), GA (280)
0.426	TG (1937), GT (1266), GC (552), CT (494), GA (280)

3.4 SCFR_NC_060934.1_18577128_18582279

3.4.1 Protein: frame-1

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 5151 bp
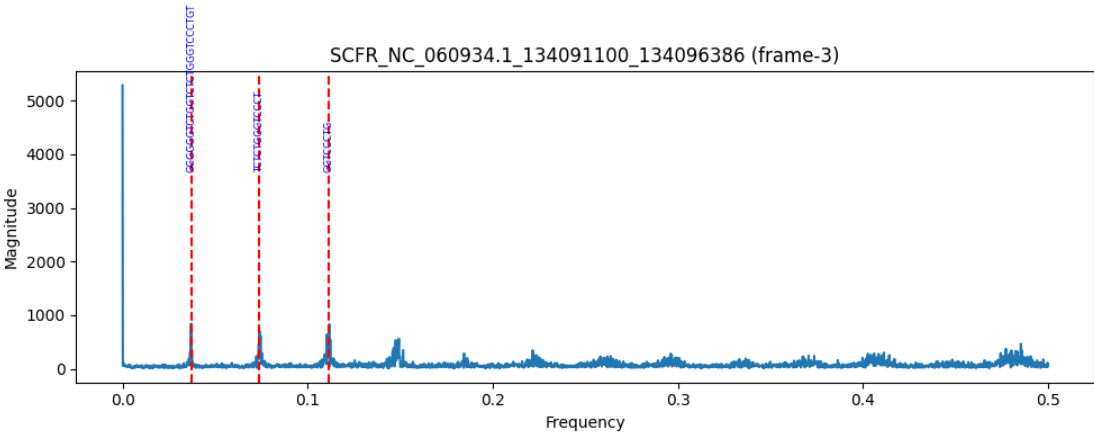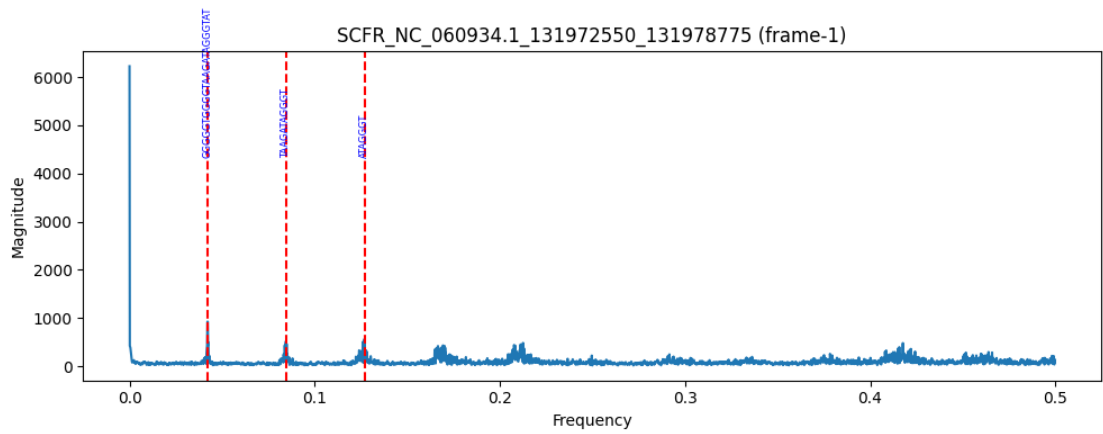**Protein Description**:
Stop-codon-free region (18577128-18582279)

Figure 4: FFT Spectrum for frame-1

Frequency	Motifs
0.177	GAATG (525), ATGGA (510), AATGG (503), TGGAA (370), GGAAT (357)
0.412	GA (1016), AA (913), AT (789), TG (754), GG (733)
0.411	GA (1016), AA (913), AT (789), TG (754), GG (733)

3.5 SCFR_NC_060934.1_134091100_134096386

3.5.1 Protein: frame-3

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 5286 bp
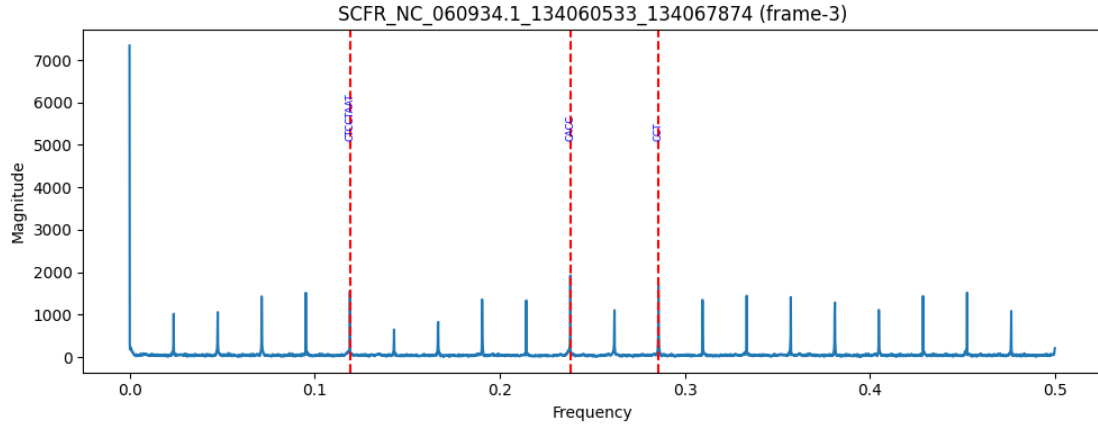**Protein Description**:
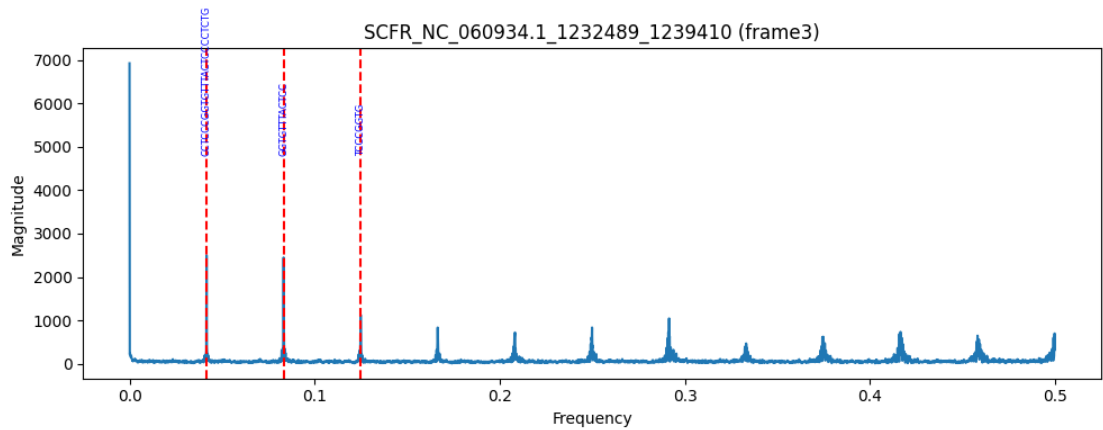Stop-codon-free region (134091100-134096386)

Figure 5: FFT Spectrum for frame-3

Frequency	
0.037	GGGGGGTCTGGTCTCTGGGTCCCTGT (34), GGTCTCTGGGTCCCTGTGGGGGCGGC (32), GTCTC
0.112	GGTCCCTG (185), CTGGGTCC
0.074	TCTCTGGGTCCCT (165), CTCTGGGTCCCTG (164

3.6 SCFR_NC_060934.1_131972550_131978775

3.6.1 Protein: frame-1

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 6225 bp
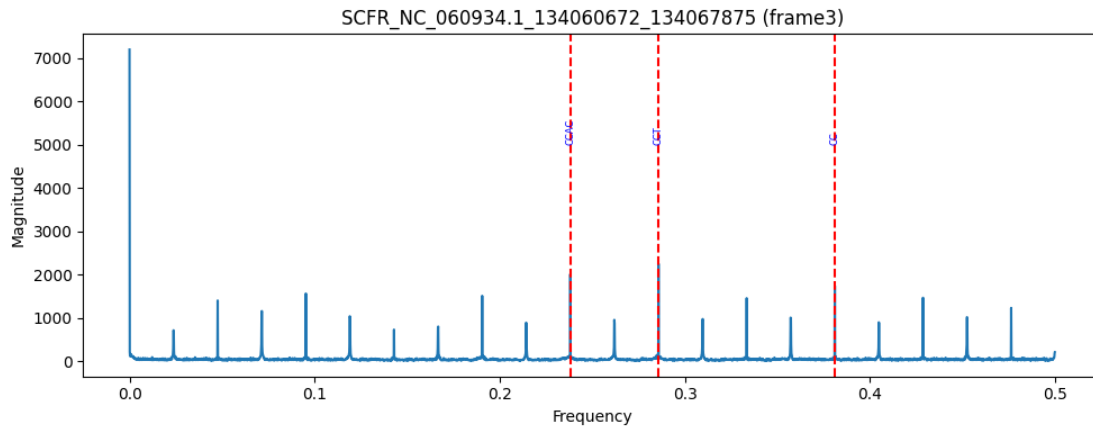**Protein Description**:
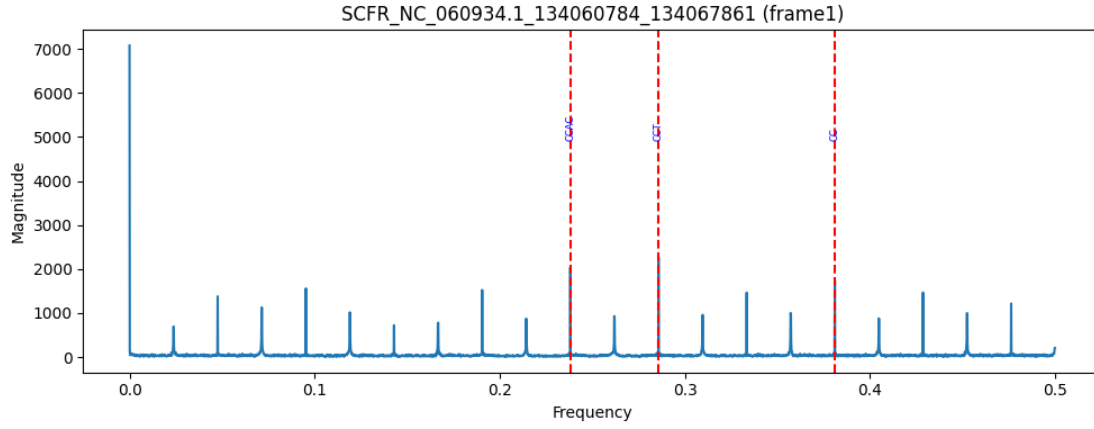Stop-codon-free region (131972550-131978775)

Figure 6: FFT Spectrum for frame-1

Frequency	
0.042	GGGGGTGGGGTAAGATAGGGTAT (127), TGGGGTAAGATAGGGTATGGGGG (124), GTGGGGTAAG
0.127	ATAGGGT (232), TAAGATA (231), AA
0.084	TAAGATAGGGT (230), GTAAGATAGGG (229), GGTA

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3.7 SCFR_NC_060934.1_134060533_134067874

3.7.1 Protein: frame-3

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 7341 bp
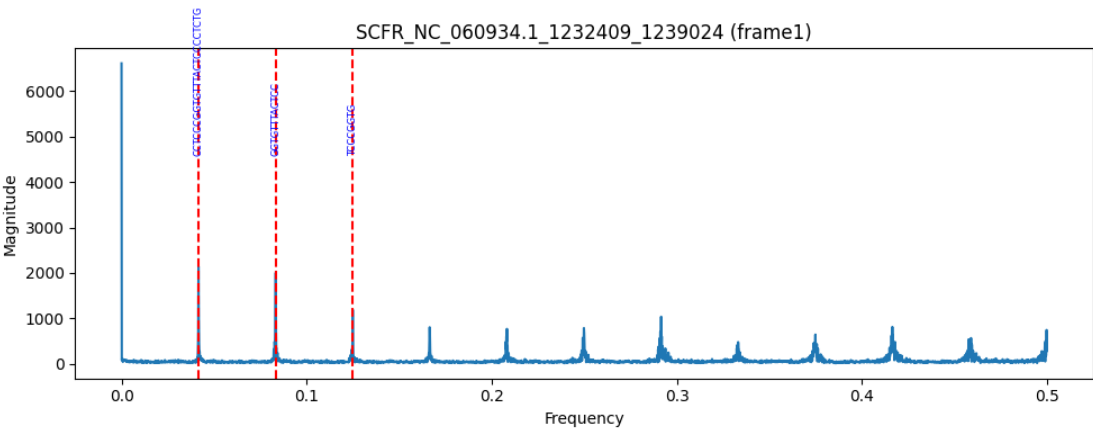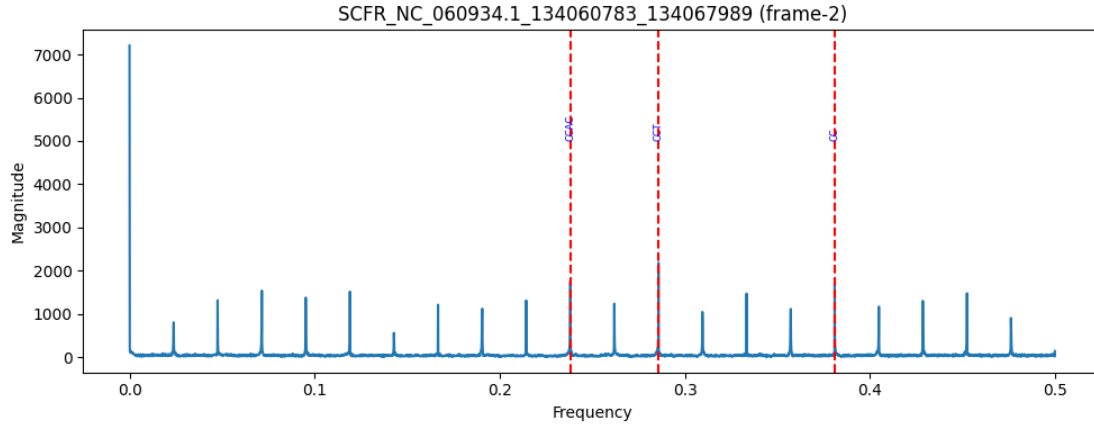**Protein Description**:
Stop-codon-free region (134060533-134067874)

Figure 7: FFT Spectrum for frame-3

Frequency	Motifs
0.238	CACC (504), CCAC (503), CTCC (397), CCTC (395), TCCC (336)
0.286	CCT (745), CCA (680), CAC (671), ACC (671), TCC (572)
0.119	CTCCTAAT (169), CCCTCCTA (168), CCTCCTAA (168), TCCTAATC (168), CCTAATCC (168)

3.8 SCFR_NC_060934.1_1232489_1239410

3.8.1 Protein: frame3

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 6921 bp
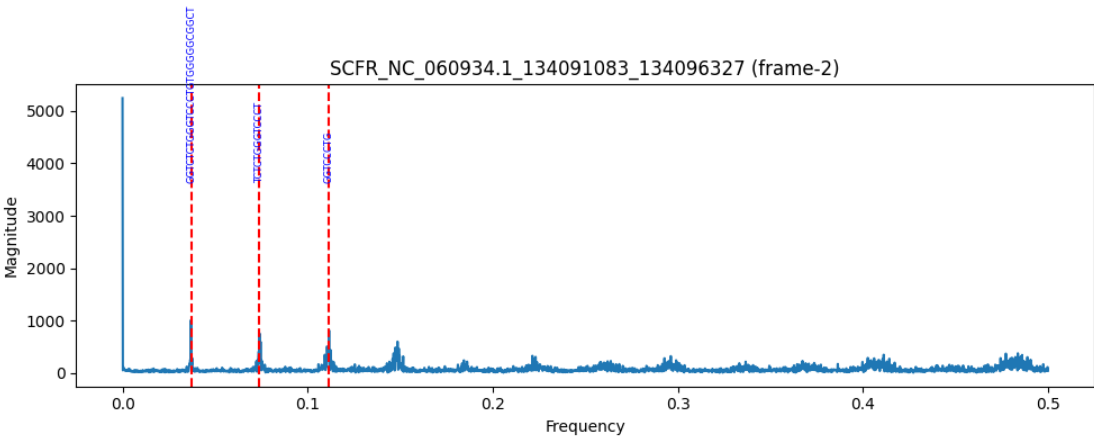**Protein Description**:
Stop-codon-free region (1232489-1239410)

Figure 8: FFT Spectrum for frame3

Frequency	
0.042	CCTCCCGGTGTTTACTCCCCTCTG (98), CTCCCGGTGTTTACTCCCCTCTGC (88), CTCCCTCCCGG...
0.083	GGTGTTTACTCC (264), GTGTTTACTCCC (264), TCCCG...
0.125	TCCCGGTG (267), CCCGGTGT (266), CCG...

3.9   SCFR_NC_060934.1_134060672_134067875

3.9.1   Protein: frame3

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 7203 bp
Protein Description:
Stop-codon-free region (134060672-134067875)

Figure 9: FFT Spectrum for frame3

Frequency	Motifs
0.286	CCT (738), CCA (676), ACC (670), CAC (669), TCC (565)
0.238	CCAC (503), CACC (503), CTCC (396), CCTC (395), ACCA (336)
0.381	CC (1943), CA (1028), AC (1014), CT (751), TC (571)

3.10 SCFR_NC_060934.1_134060784_134067861

3.10.1 Protein: frame1

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 7077 bp
Protein Description:
Stop-codon-free region (134060784-134067861)

Figure 10: FFT Spectrum for frame1

Frequency	Motifs
0.286	CCT (733), CCA (672), ACC (667), CAC (664), TCC (564)
0.238	CCAC (500), CACC (500), CTCC (395), CCTC (393), ACCA (335)
0.381	CC (1931), CA (1021), AC (1007), CT (739), TC (566)

3.11 SCFR_NC_060934.1_1232409_1239024

3.11.1 Protein: frame1

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 6615 bp
Protein Description:
Stop-codon-free region (1232409-1239024)

Figure 11: FFT Spectrum for frame1

Frequency	
0.042	CCTCCCGGTGTTTACTCCCCTCTG (98), CTCCCGGTGTTTACTCCCCTCTGC (88), CTCCCTCCCGG
0.083	GGTGTTTACTCC (264), GTGTTTACTCCC (264), TCCCG
0.125	TCCCGGTG (267), CCCGGTGT (266), CCG

3.12   SCFR_NC_060934.1_134060783_134067989

3.12.1   Protein: frame-2

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 7206 bp
Protein Description:
Stop-codon-free region (134060783-134067989)

Figure 12: FFT Spectrum for frame-2

Frequency	Motifs
0.286	CCT (736), CCA (677), ACC (668), CAC (666), TCC (568)
0.238	CCAC (501), CACC (500), CTCC (397), CCTC (394), ACCA (335)
0.381	CC (1942), CA (1032), AC (1014), CT (749), TC (574)

3.13 SCFR_NC_060934.1_134091083_134096327

3.13.1 Protein: frame-2

Gene ID: SCFR
Nucleotide Accession: NC_060934.1
Sequence Length: 5244 bp
Protein Description:
Stop-codon-free region (134091083-134096327)

Figure 13: FFT Spectrum for frame-2

Frequency	
0.037	GGTCTCTGGGTCCCTGTGGGGGCGGCT (32), CTGGTCTCTGGGTCCCTGTGGGGGCGG (31), TGC...
0.112	GGTCCCTG (185), CTGGGT...
0.074	TCTCTGGGTCCCT (165), CTCTGGGTCCCTG...

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