Fourier Spectral Analysis of Coding Sequences

Automated Report

November 20, 2025

Contents

1 Group 1: Single Peak at 0.33

2 Group 2: Single Peak Elsewhere

3 Group 3: Multiple Peaks

3.1 SCFR_NC_060936.1_133005159_133010910

3.1.1 Protein: frame1

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 5751 bp
Protein Description:
Stop-codon-free region (133005159-133010910)

Figure 1: FFT Spectrum for frame1

Frequency	Motifs
0.053	GGAGAAGGGTGGGGAGGG (152), GAGAAGGGTGGGGAGGGG (151), AGAAGGGTGGGGAGGGG
0.053	GGAGAAGGGTGGGGAGGG (152), GAGAAGGGTGGGGAGGGG (151), AGAAGGGTGGGGAGGGGG
0.106	GGAGAAGGG (262), AAGGGTGGG (260), GAAGGGTGG (258),

3.2 SCFR_NC_060936.1_131622820_131629414

3.2.1 Protein: frame2

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6594 bp
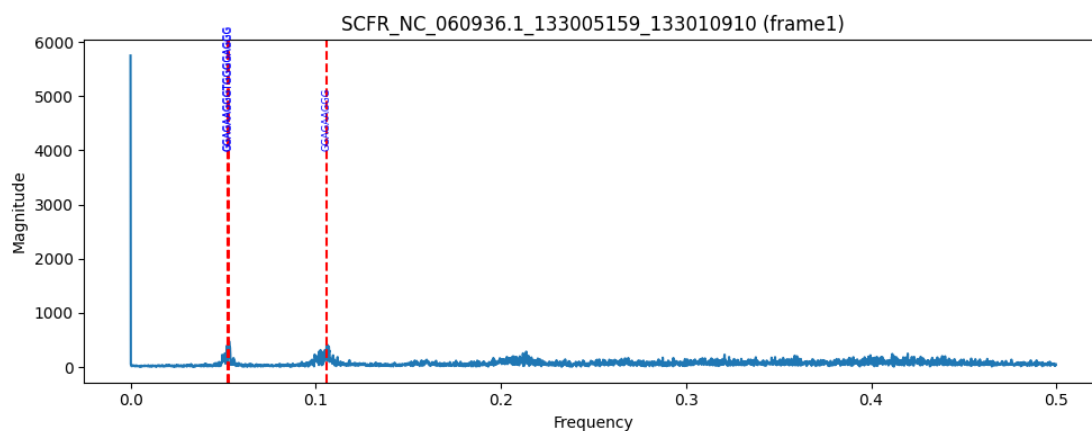**Protein Description**:
Stop-codon-free region (131622820-131629414)

Figure 2: FFT Spectrum for frame2

Frequency	Motifs
0.47	CT (1627), TG (1392), TC (1137), GT (1011), GC (463)
0.471	CT (1627), TG (1392), TC (1137), GT (1011), GC (463)
0.47	CT (1627), TG (1392), TC (1137), GT (1011), GC (463)

3.3 SCFR_NC_060936.1_132290033_132296255

3.3.1 Protein: frame3

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6222 bp
Protein Description:
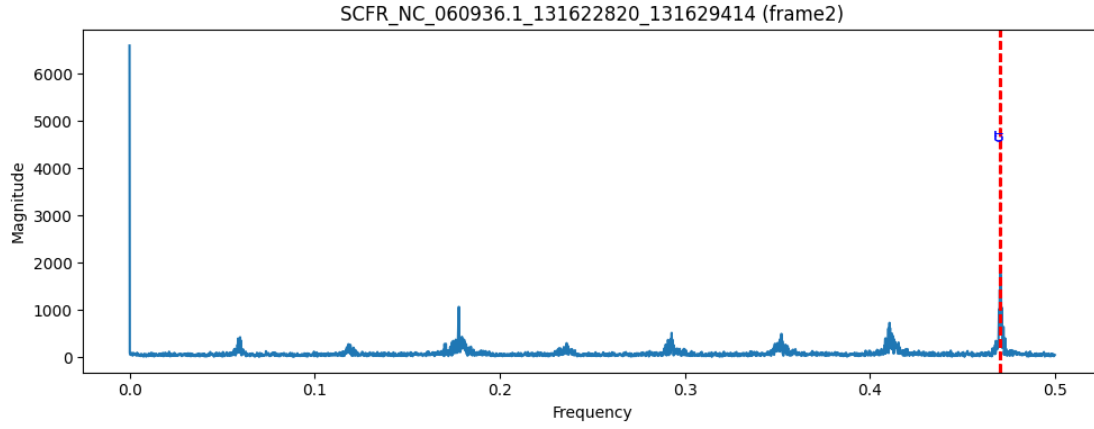Stop-codon-free region (132290033-132296255)

Figure 3: FFT Spectrum for frame3

Frequency	Motifs
0.178	CACAC (414), ACACA (358), CTTCC (139), CCTTC (132), ACACC (126)
0.155	ACACAC (326), CACACA (203), CCTTCC (131), CACACC (125), TCCCTA (124)

3.4 SCFR_NC_060936.1_131623112_131629325

3.4.1 Protein: frame3

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6213 bp
Protein Description:
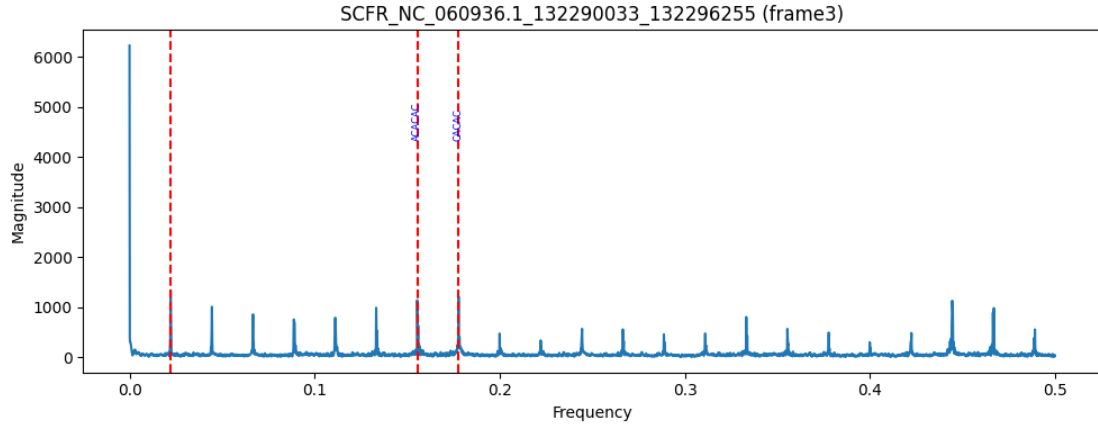Stop-codon-free region (131623112-131629325)

Figure 4: FFT Spectrum for frame3

Frequency	Motifs
0.471	CT (1555), TG (1317), TC (1088), GT (953), GC (444)
0.47	CT (1555), TG (1317), TC (1088), GT (953), GC (444)
0.178	TGTCT (579), CTCTG (407), TCTCT (401), CTGTC (365), GTCTC (342)

3.5 SCFR_NC_060936.1_133004969_133010465

3.5.1 Protein: frame3

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 5496 bp
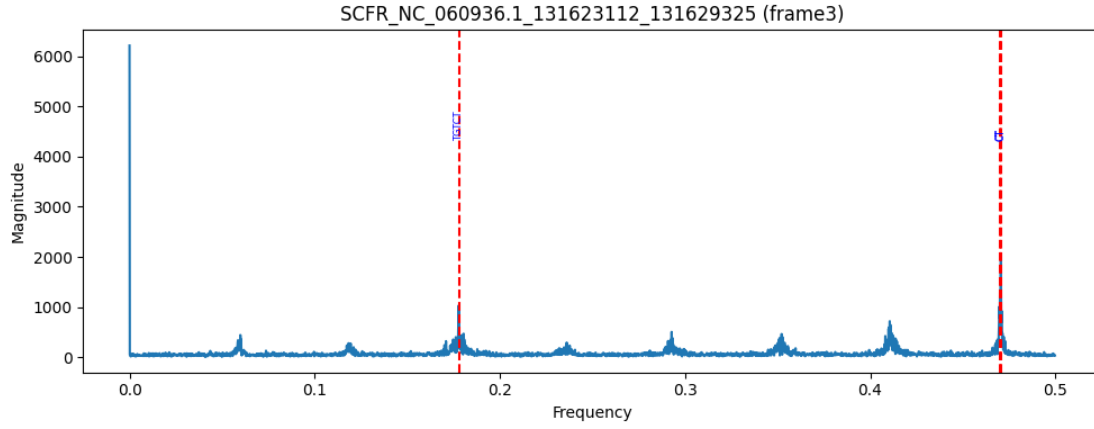**Protein Description**:
Stop-codon-free region (133004969-133010465)

Figure 5: FFT Spectrum for frame3

Frequency	Motifs
0.053	GGAGAAGGGTGGGGAGGG (138), GAGAAGGGTGGGGAGGGG (137), GGGAGGGGGGGAGAAGGGT
0.053	GGAGAAGGGTGGGGAGGG (138), GAGAAGGGTGGGGAGGGG (137), GGGAGGGGGGGAGAAGGGT
0.106	GGAGAAGGG (246), AAGGGTGGG (246), GAAGGGTGG (244),

3.6 SCFR_NC_060936.1_133005175_133011940

3.6.1 Protein: frame2

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6765 bp
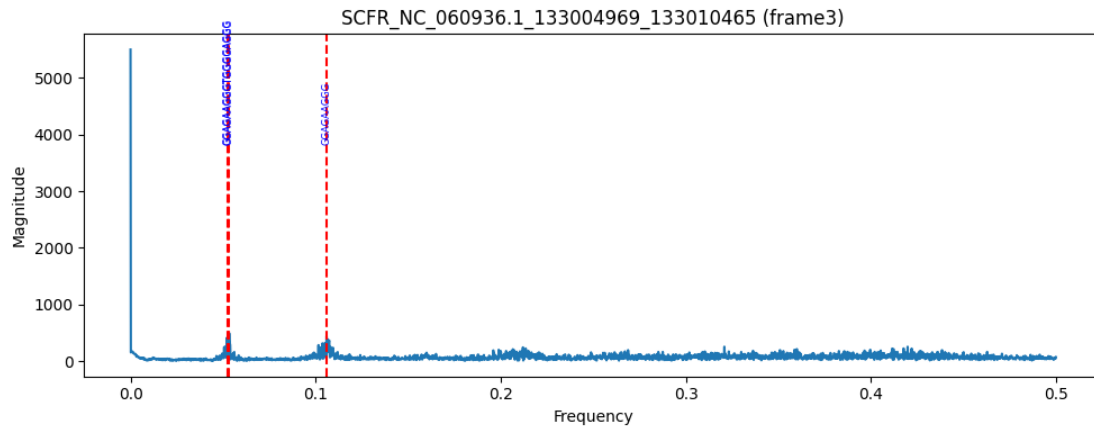**Protein Description**:
Stop-codon-free region (133005175-133011940)

Figure 6: FFT Spectrum for frame2

Frequency	Motifs
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.106	GGAGAAGGG (301), AAGGGTGGG (296), GAAGGGTGG (292),

3.7   SCFR_NC_060936.1_133005146_133011884

3.7.1   Protein: frame-2

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6738 bp
Protein Description:
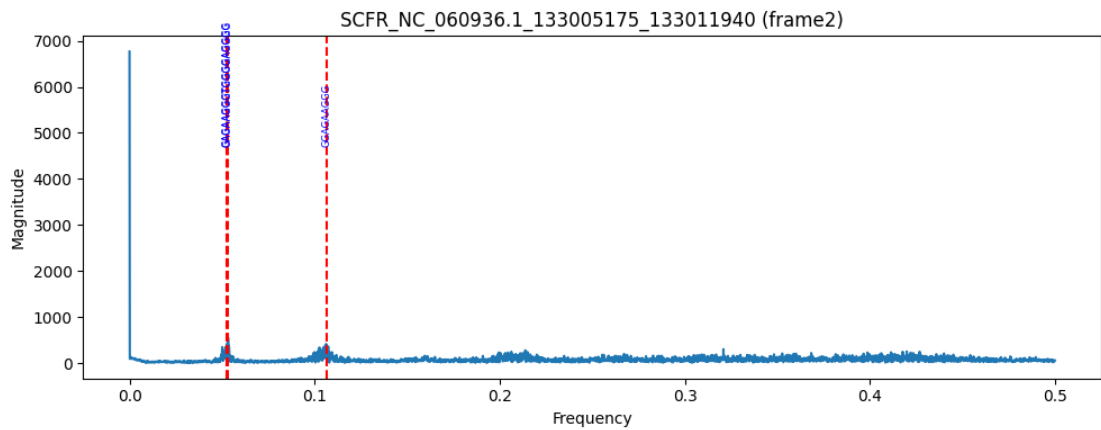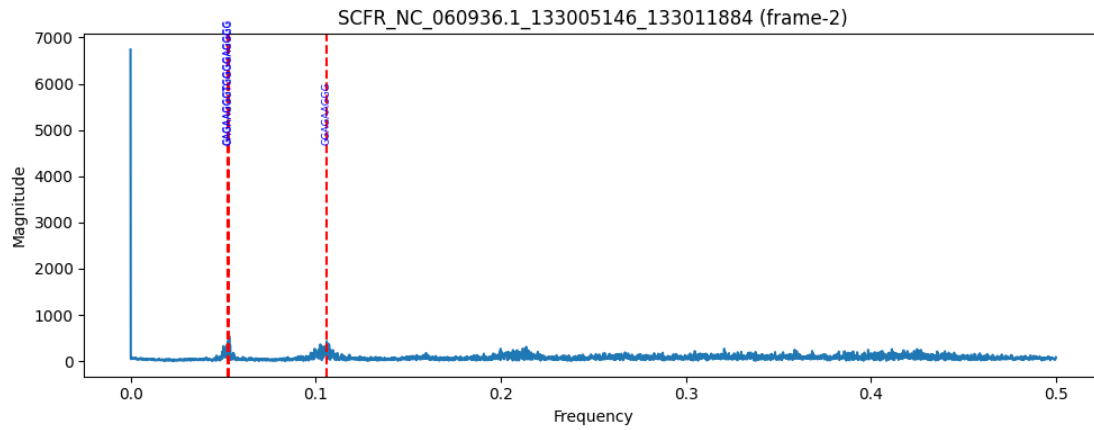Stop-codon-free region (133005146-133011884)

Figure 7: FFT Spectrum for frame-2

Frequency	Motifs
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.106	GGAGAAGGG (301), AAGGGTGGG (296), GAAGGGTGG (292),

3.8 SCFR_NC_060936.1_2251543_2257381

3.8.1 Protein: frame2

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 5838 bp
Protein Description:
Stop-codon-free region (2251543-2257381)

Figure 8: FFT Spectrum for frame2

Frequency	Motifs
0.233	CCTG (344), TGAC (344), CTGA (343), GACC (298), TTAC (213)
0.167	CCTGAC (343), CTGACC (192), TGACCT (191), CTAGTT (190), TAGTTT (190)
0.367	AC (1069), CT (595), CA (581), GA (528), CC (524)

3.9 SCFR_NC_060936.1_131622648_131629353

3.9.1 Protein: frame1

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6705 bp
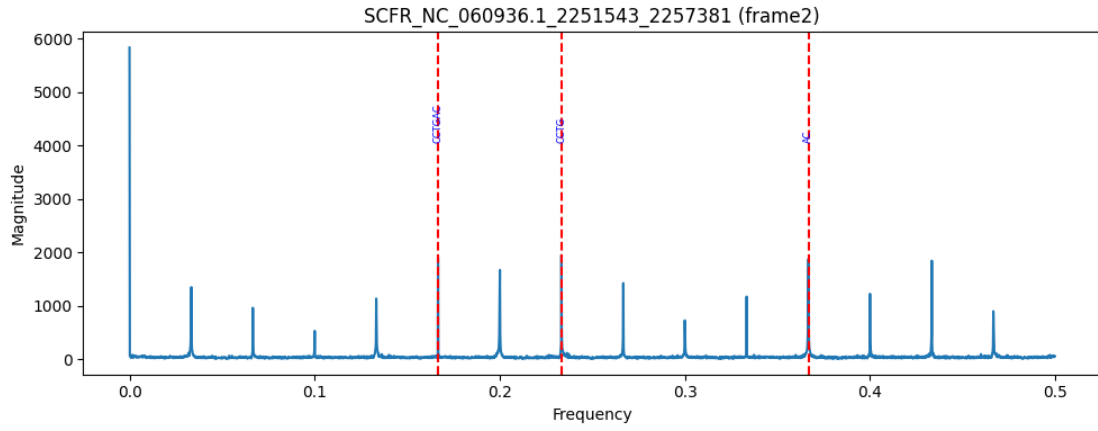**Protein Description**:
Stop-codon-free region (131622648-131629353)

Figure 9: FFT Spectrum for frame1

Frequency	Motifs
0.471	CT (1656), TG (1415), TC (1156), GT (1027), GC (471)
0.47	CT (1656), TG (1415), TC (1156), GT (1027), GC (471)
0.47	CT (1656), TG (1415), TC (1156), GT (1027), GC (471)

3.10 SCFR_NC_060936.1_133005018_133011888

3.10.1 Protein: frame-1

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6870 bp
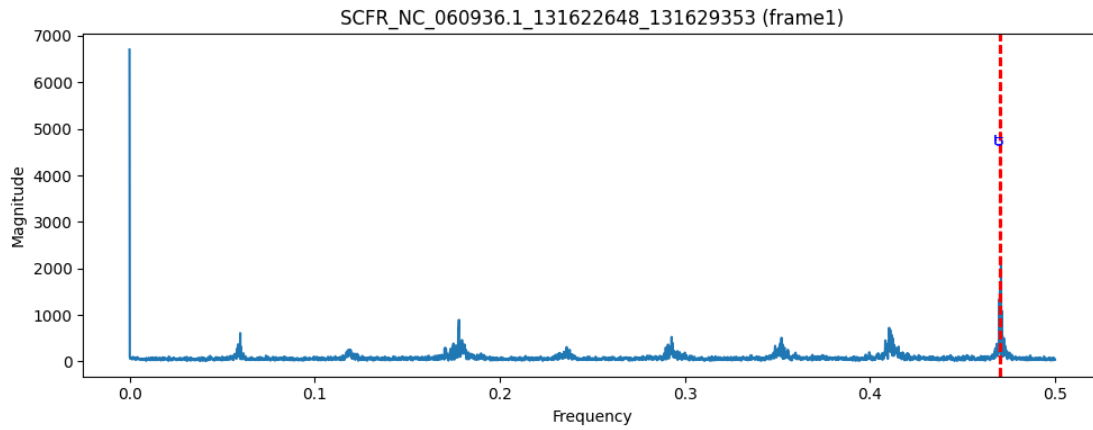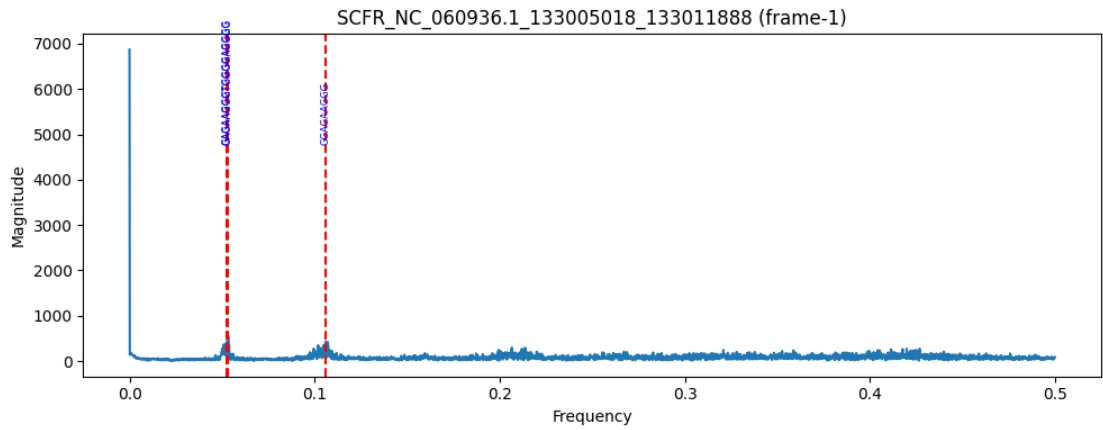**Protein Description**:
Stop-codon-free region (133005018-133011888)

Figure 10: FFT Spectrum for frame-1

Frequency	Motifs
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.106	GGAGAAGGG (303), AAGGGTGGG (297), GAAGGGTGG (293),

11

3.11 SCFR_NC_060936.1_133005142_133011970

3.11.1 Protein: frame-3

Gene ID: SCFR
Nucleotide Accession: NC_060936.1
Sequence Length: 6828 bp
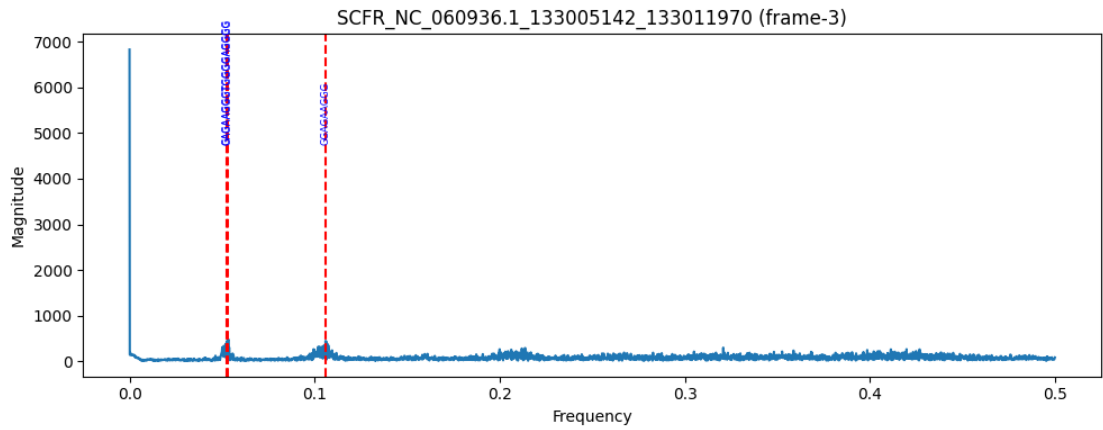**Protein Description**:
Stop-codon-free region (133005142-133011970)

Figure 11: FFT Spectrum for frame-3

Frequency	Motifs
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.053	GAGAAGGGTGGGGAGGGG (170), GGAGAAGGGTGGGGAGGG (169), AGAAGGGTGGGGAGGGGG
0.106	GGAGAAGGG (301), AAGGGTGGG (296), GAAGGGTGG (292),