

# 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\_060938.1\_99472982\_99484097

#### 3.1.1 Protein: frame3

Gene ID: SCFR

Nucleotide Accession: NC\_060938.1

Sequence Length: 11115 bp

Protein Description:

Stop-codon-free region (99472982-99484097)

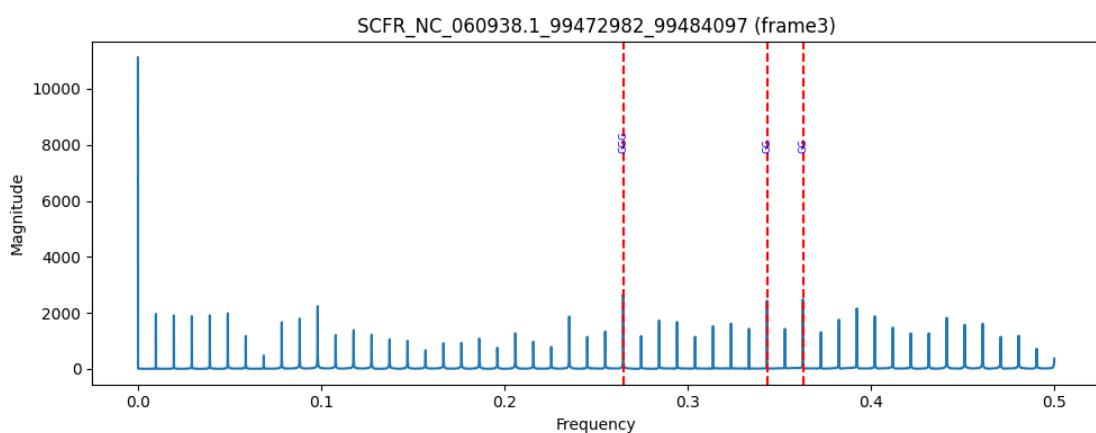


Figure 1: FFT Spectrum for frame3

| Frequency | Motifs  |
|-----------|---|
| 0.265     | GGG (655), CAG (545), GAG (545), AGC (544), GCC (436) |
| 0.363     | GG (1415), CA (1308), AG (1307), CC (1306), GC (1196) |
| 0.343     | GG (1415), CA (1308), AG (1307), CC (1306), GC (1196) |

## 3.2 SCFR\_NC\_060938.1\_9191928\_9197229

### 3.2.1 Protein: frame-2

Gene ID: SCFR

Nucleotide Accession: NC\_060938.1

Sequence Length: 5301 bp

Protein Description:

Stop-codon-free region (9191928-9197229)

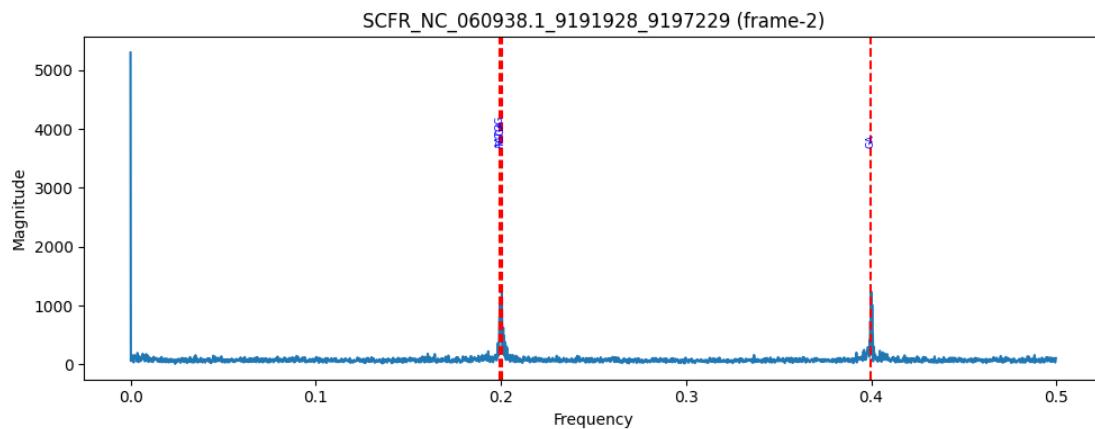


Figure 2: FFT Spectrum for frame-2

| Frequency | Motifs  |
|-----------|---|
| 0.4       | GA (899), TG (870), GG (816), AA (632), AG (545)                |
| 0.201     | TGGA (615), AATG (381), GGAA (361), GAAT (347), ATGG (333)      |
| 0.2       | AATGG (321), ATGGA (318), TGGAA (317), GAATG (313), GGAAT (305) |

### 3.3 SCFR\_NC\_060938.1\_1281710\_1287200

#### 3.3.1 Protein: frame3

Gene ID: SCFR

Nucleotide Accession: NC\_060938.1

Sequence Length: 5490 bp

Protein Description:

Stop-codon-free region (1281710-1287200)

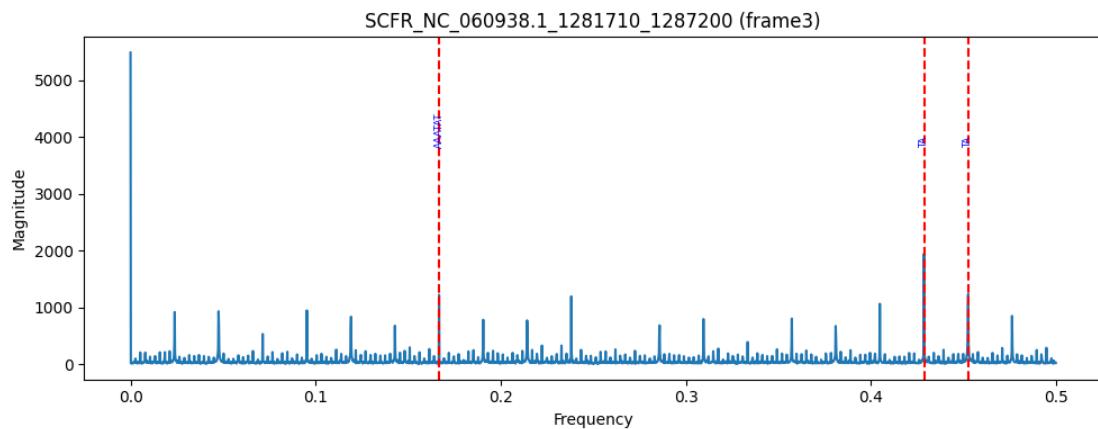


Figure 3: FFT Spectrum for frame3

| Frequency | Motifs   |
|-----------|--|
| 0.429     | TA (1094), AT (1040), AA (898), CA (459), AC (423)                   |
| 0.452     | TA (1094), AT (1040), AA (898), CA (459), AC (423)                   |
| 0.167     | AAATAT (181), ATATAT (137), GTACAT (130), TATATA (127), ATCAAA (112) |

### 3.4 SCFR\_NC\_060938.1\_9180175\_9185392

#### 3.4.1 Protein: frame-1

Gene ID: SCFR

Nucleotide Accession: NC\_060938.1

Sequence Length: 5217 bp

Protein Description:

Stop-codon-free region (9180175-9185392)

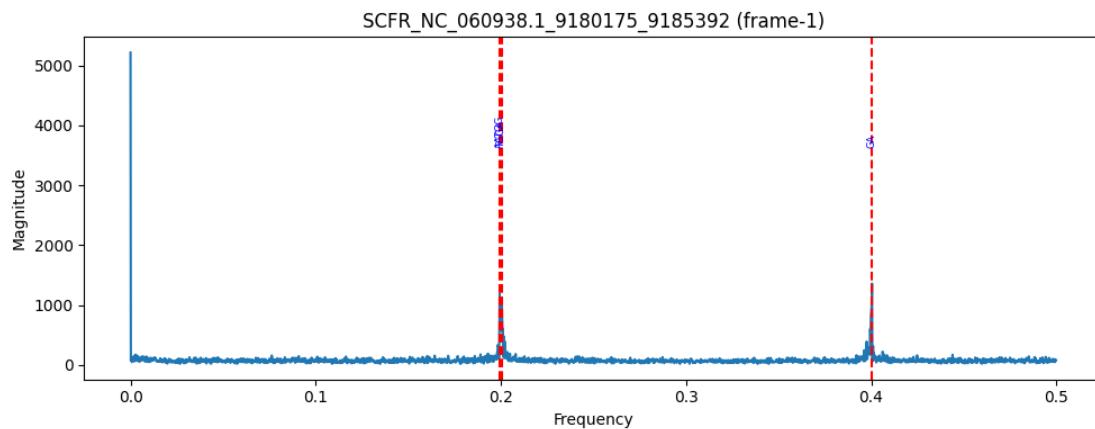


Figure 4: FFT Spectrum for frame-1

| Frequency | Motifs  |
|-----------|---|
| 0.4       | GA (886), TG (849), GG (794), AA (631), AG (540)                |
| 0.199     | AATGG (314), ATGGA (311), TGGAA (309), GAATG (304), GGAAT (293) |
| 0.2       | TGGA (600), AATG (368), GGAA (359), GAAT (333), ATGG (326)      |