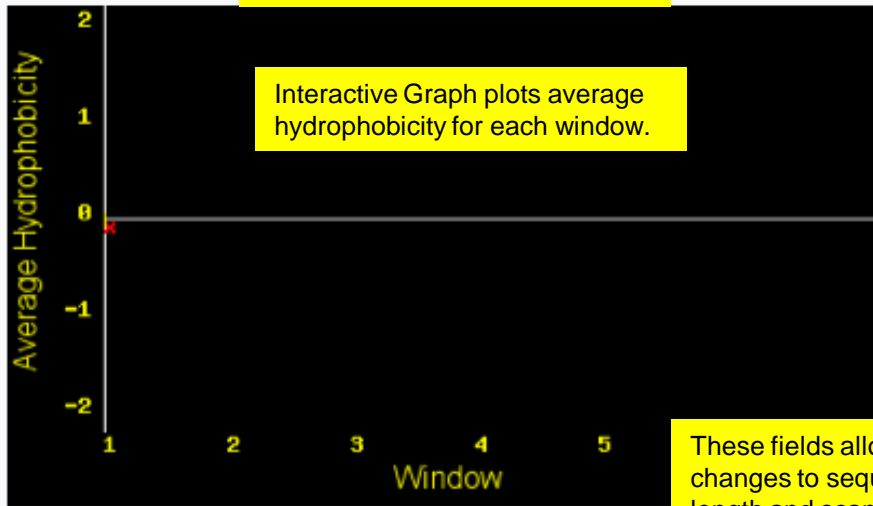


|      |      |      |     |      |      |     |     |      |     |
|------|------|------|-----|------|------|-----|-----|------|-----|
| S    | T    | P    | F   | G    | Q    | L   | C   | Q    | V   |
| -0.8 | -0.7 | -1.6 | 2.8 | -0.4 | -3.5 | 3.8 | 2.5 | -3.5 | 4.2 |

Scanning protein sequence  
(5 amino acid window)

Score: -0.7  
Average: -0.14

Calculates Hydrophobicity Score:  
Score = Sum over Window;  
Average = Sum/Window Size



These fields allow changes to sequence length and scanning window size.

| Amino Acid | H-Score | Amino Acid | H-Score |
|------------|---------|------------|---------|
| A          | 1.8     | L          | 3.8     |
| R          | -4.5    | K          | -3.9    |
| N          | -3.5    | M          | 1.9     |
| D          | -3.5    | F          | 2.8     |
| C          | 2.5     | P          | -1.6    |
| Q          | -3.5    | S          | -0.8    |
| E          | -3.5    | T          | -0.7    |
| G          | -0.4    | W          | -0.9    |
| H          | -3.2    | Y          | -1.3    |
| I          | 4.5     | V          | 4.2     |

Sequence Size (10-15)

Window Size (5-8)

Hydrophobicity scores for every amino acid. (More positive = more hydrophobic).

Find more information by clicking amino acid letters.

Amino Acid Structure

kelleybioinfo.org/algorithms/hydro

## Nonpolar Amino Acid

### Leucine (Leu)

1-letter symbol: L  
molecular weight: 131.18  
molecular formula: C<sub>6</sub>H<sub>13</sub>NO<sub>2</sub>  
residue formula: C<sub>5</sub>H<sub>9</sub>NO  
residue weight: 113.16  
pK<sub>a</sub>: 2.36  
pK<sub>a</sub>: 9.60  
pK<sub>a</sub>: —  
pI: 5.98

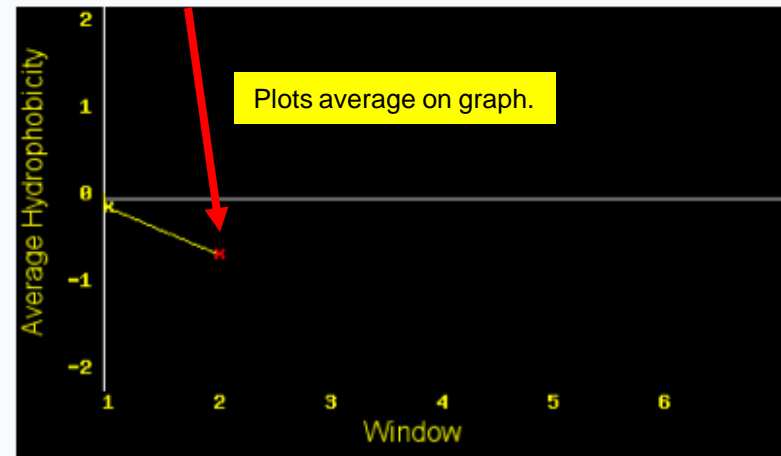
| Amino Acid |
|------------|
| L          |
| K          |

Slide window by clicking or touching letters. (First letter of next window).

|      |      |      |     |      |      |     |     |      |     |
|------|------|------|-----|------|------|-----|-----|------|-----|
| S    | T    | P    | F   | G    | Q    | L   | C   | Q    | V   |
| -0.8 | -0.7 | -1.6 | 2.8 | -0.4 | -3.5 | 3.8 | 2.5 | -3.5 | 4.2 |

Score: -3.4  
Average: -0.68

Calculates Sum and Average for new window.



Quiz mode

|          |          |          |          |          |      |      |     |     |      |
|----------|----------|----------|----------|----------|------|------|-----|-----|------|
| <b>D</b> | <b>T</b> | <b>T</b> | <b>T</b> | <b>D</b> | T    | H    | M   | F   | P    |
| -3.5     | -0.7     | -0.7     | -0.7     | -3.5     | -0.7 | -3.2 | 1.9 | 2.8 | -1.6 |

In Quiz Mode, the program asks the user to calculate the sum and average.

Score:

Average:

Check Answer

