

## Self-Quiz 2 Questions

### Activity Two: Constructing a Proposed Gene

Exon Coordinates	max sim score	EST/cDNA having exon
<input type="radio"/> 642713 642764	1	<a href="#">32975938</a>
<input type="radio"/> 642719 642764	1	<a href="#">15008733</a>
<input type="radio"/> 642722 642764	0.953	<a href="#">568550</a>
<input checked="" type="radio"/> 642727 642764	1	<a href="#">29635505</a> <a href="#">32947907</a> <a href="#">29671477</a>
<input type="radio"/> 642729 642764	1	<a href="#">5003366</a> <a href="#">29657749</a>
<input type="radio"/> 642731 642764	1	<a href="#">29660803</a> <a href="#">29620657</a>
<input type="radio"/> 642735 642764	1	<a href="#">428814</a>
<input type="radio"/> 642736 642764	1	<a href="#">29635483</a>
<input type="radio"/> 642740 642764	1	<a href="#">29661960</a>
<input type="radio"/> 644015 644218	0.985	<a href="#">3090472</a>
<input type="radio"/> 644015 644281	0.989	<a href="#">568550</a>
<input type="radio"/> 644015 644299	1	<a href="#">29635483</a>
<input type="radio"/> 644015 644301	0.969	<a href="#">2311137</a>
<input type="radio"/> 644015 644331	0.978	<a href="#">2442649</a>
<input type="radio"/> 644015 644352	1	<a href="#">5003366</a>
<input type="radio"/> 644015 644395	1	<a href="#">15008733</a>
<input type="radio"/> 644015 644408	0.995	<a href="#">29635505</a>
<input checked="" type="radio"/> 644015 644429	1	<a href="#">32947907</a>

Document name: evidencetable2

**Which of the following statements is true regarding the above Evidence Table?**

- Those exons with an identical second coordinate are the same.
- Each of the first nine exons is successively shorter than the previous exon.
- The exons are organized by the EST/cDNA ID number.
- The lower the Max Sim Score the better.

**Some of the exons in the table above have multiple ID numbers in the right column.**

**Which of the following best explains the reason for this?**

- There are multiple introns interrupting these exons.
- There are multiple start codons for these exons
- The same exon can be found on multiple sequences
- These exons are can be found in multiple species

**Based on the information in the above table, which exon is least likely to provide good evidence for a proposed gene model?**

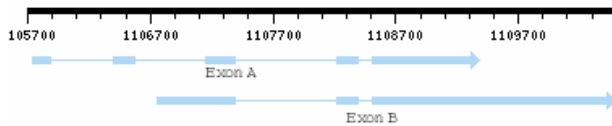
- 642713 642764
- 642727 642764
- 644015 644218
- 644015 644331

**Based on the information in the table above, which exon is the longest?**

- 642713 642764
- 642727 642764
- 644015 644218
- 644015 644331

Based on the information in the above table, which of the following EST or cDNA sequences contains multiple exons?

- 29635505
- 32947907
- 5003366
- 29660803



Exon Coordinates	max sim score	EST/cDNA having exon
<input type="radio"/> 1105733 1105889	1	<a href="#">32993879</a>
<input type="radio"/> 1106400 1106574	1	<a href="#">32993879</a>
<input type="radio"/> 1106751 1107395	1	<a href="#">37989008</a>
<input type="radio"/> 1107151 1107395	1	<a href="#">32993879</a>
<input type="radio"/> 1108219 1108388	1	<a href="#">37989008</a> <a href="#">32993879</a>
<input type="radio"/> 1108505 1109388	1	<a href="#">32993879</a>
<input type="radio"/> 1108505 1110489	0.999	<a href="#">37989008</a>

Document Name: quiz2

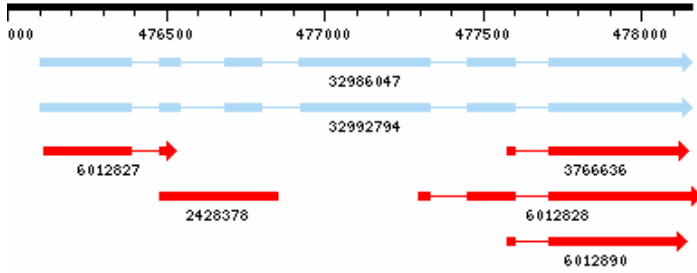
Based on the information in the above figure, which of the following statements is correct?

cDNA A is 32993879 and cDNA B is 37989008.

cDNA B is 32993879 and cDNA A is 37989008.

The information in the evidence table does not match the structures in the Evidence Plot.

These two cDNA do not contain a common exon.



Your Structure:



<input checked="" type="radio"/>	476099 476388	1	<a href="#">32986047</a>
<input type="radio"/>	476101 476388	0.997	<a href="#">32992794</a>
<input type="radio"/>	476114 476388	0.993	<a href="#">6012827</a>
<input type="radio"/>	476413 476424	0.75	<a href="#">15857045</a>
<input type="radio"/>	476479 476850	0.987	<a href="#">2428378</a>
<input type="radio"/>	476481 476532	1	<a href="#">6012827</a>
<input checked="" type="radio"/>	476481 476543	1	<a href="#">32986047</a> <a href="#">32992794</a>
<input checked="" type="radio"/>	476684 476800	1	<a href="#">32986047</a> <a href="#">32992794</a>
<input checked="" type="radio"/>	476920 477328	1	<a href="#">32986047</a>
<input type="radio"/>	476925 477328	1	<a href="#">32992794</a>
<input type="radio"/>	477297 477328	0.812	<a href="#">6012828</a>
<input checked="" type="radio"/>	477448 477599	1	<a href="#">32986047</a> <a href="#">32992794</a> <a href="#">6012828</a>
<input type="radio"/>	477573 477599	0.963	<a href="#">3766636</a>
<input type="radio"/>	477575 477599	0.96	<a href="#">6012890</a>
<input type="radio"/>	477706 478141	0.982	<a href="#">6012890</a>
<input type="radio"/>	477706 478144	0.995	<a href="#">3766636</a>
<input checked="" type="radio"/>	477706 478157	1	<a href="#">32986047</a> <a href="#">32992794</a>
<input type="radio"/>	477819 477909	0.582	<a href="#">15857045</a>

Document Name: quiz2b

Use the information in the above Evidence Table to determine which complete structure in the Evidence Plot supports the proposed gene model.

6012827  
 6012828  
 32986047  
 32992794

## Self-Quiz Questions and Answers

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Document name: evidencetable2

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642713 642764

**642727 642764**

644015 644218

644015 644331

**Based on the information in the table above, which exon is the longest?**

642713 642764 (51)

642727 642764 (37)

644015 644218 (203)

**644015 644331 (316)**

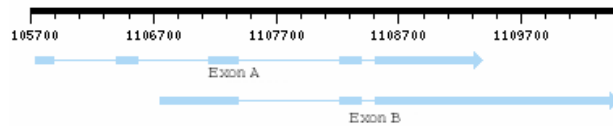
Based on the information in the above table, which of the following EST or cDNA sequences contains multiple exons?

29635505

**32947907**

5003366

29660803



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<input type="radio"/> 1108219 1108388	1	<a href="#">37989008</a> <a href="#">32993879</a>
<input type="radio"/> 1108505 1109388	1	<a href="#">32993879</a>
<input type="radio"/> 1108505 1110489	0.999	<a href="#">37989008</a>

Document Name: quiz2

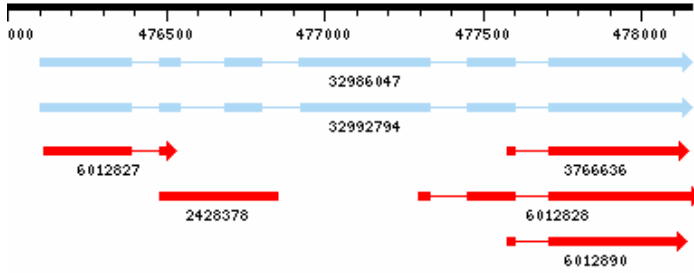
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<input type="radio"/>	477573 477599	0.963	<a href="#">3766636</a>
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<input type="radio"/>	477706 478141	0.982	<a href="#">6012890</a>
<input type="radio"/>	477706 478144	0.995	<a href="#">3766636</a>
<input checked="" type="radio"/>	477706 478157	1	<a href="#">32986047</a> <a href="#">32992794</a>
<input type="radio"/>	477819 477909	0.582	<a href="#">15857045</a>

Document Name: quiz2b

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6012827

6012828

[32986047](#)

32992794