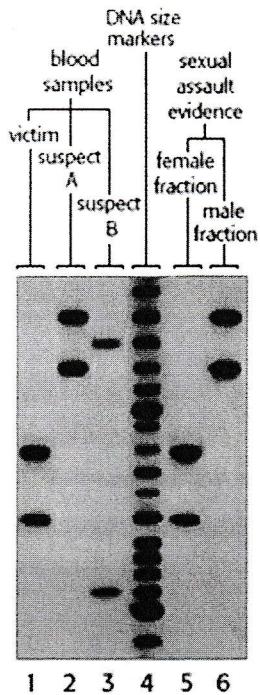


2. In this case, there are two suspects. Lab technicians loaded DNA samples from the following sources: known blood samples from the victim, suspect A, and suspect B; DNA size markers; the female fraction from a vaginal swab of the victim; and the male fraction from the same swab. The resulting gel is shown. If you are the DNA analyst, you should conclude that:

- a) Both suspects A and B are excluded as the source of the evidence.
- b) Suspect A is excluded as the source of the evidence, but suspect B cannot be excluded.
- c) Suspect B is excluded as the source of the evidence, but suspect A cannot be excluded.
- d) Neither suspect A nor B can be excluded.

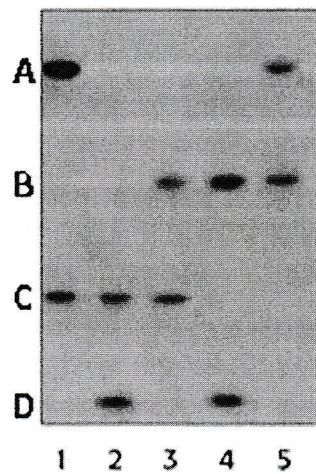
Explain your answer.



3. Results of DNA fingerprint analysis for a man and his four different children are shown in the figure. Which lane contains the DNA of the father?

- a) lane 1
- b) lane 2
- c) lane 3
- d) lane 4
- e) lane 5

Explain your answer.



4. Results of DNA fingerprint analysis for a man and woman and their four children are shown in the image to the right. Which child is **least likely** to be the biological offspring of this couple?

- a) Child 1
- b) Child 2
- c) Child 3
- d) Child 4

Explain your answer.

