

40 Human insulin can be produced in large quantities by genetically modified bacteria.

Four of the steps in the processes of genetic modification and insulin production are listed.

- 1 Insulin is removed from the bacterial culture.
- 2 An enzyme is used to cut out the insulin gene from a human chromosome.
- 3 The insulin gene is placed into the plasmid of a bacterium.
- 4 Bacteria with the insulin gene reproduce very rapidly.

What is the order of these steps?

- A** 1 → 2 → 3 → 4
- B** 2 → 3 → 4 → 1
- C** 3 → 2 → 4 → 1
- D** 4 → 1 → 2 → 3