

Answer on Question #78096- Biology / Biochemistry

Although intracellular bacterial infection can be treated by giving an antibiotic that blocks protein synthesis, doesn't affect human cells. Why?

- A. Antibiotic molecules can't enter human cells.
- B. Antibiotic gets degraded by human cell.
- C. Human ribosomes are different from bacterial ribosomes.
- D. Human genetic code is different from bacterial genetic code.

Answer:

C. Human ribosomes are different from bacterial ribosomes.

Antibiotics, which is used to treat intracellular bacterial infection, usually block only bacterial (prokaryotic) ribosomes (70S), not eukaryotic ribosomes (80S).