

5 Inhibitors are substances that prevent biological processes in a variety of different ways.

Table 5.1 shows some antibiotics, their modes of action and the diseases which they are used to treat.

Table 5.1

antibiotic	mode of action	disease
erythromycin	binds to ribosomes to inhibit translation	cholera
penicillin	enzyme inhibitor	tetanus
rifampicin	inhibits the function of RNA polymerase in transcription	tuberculosis

(a) Suggest why erythromycin can inhibit translation in the bacterium that causes cholera **and not** inhibit translation in humans who are infected with this pathogen.

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(b) State why penicillin does **not** act on human cells.

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(c) Explain **one** way in which rifampicin may inhibit the action of RNA polymerase in transcription.

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