(a) The situation in a lytic infection. CRO protein occupies OR3, preventing RNA Polymerase from initiating transcription from the cl promoter. RNA Polymerase transcribes the cro gene, producing more CRO protein, which silences CI transcription.

(b) The situation in a lysogenic cycle. CI protein induces cl gene transcription and cro gene silencing. The CI repressor protein binds OR2 and OR1, preventing RNA Polymerase from transcribing the cro gene, and promoting cl transcription. Unlike CRO, CI has an activation domain that promotes RNA Polymerase binding to its own promoter.