E1cB mechanism (E-elimination, 1cB-first order with respect to conjugate base) is one of the three limiting mechanisms of 1,2-elimination. It is a two-step mechanism.

Step 1:

* Only the leaving group and one beta hydrogen are shown for clarity.

Step 2:

Step two is first order and its reactant is the conjugate base of the substrate, hence the notation 1cB.

A 1,2-elimination occurring via E1cB mechanism is called and E1cB reaction. Stand-alone E1cB reactions are not common, and they have a complex rate law, meaning that the rate-limiting step is the second step.

However, in the most common E1cB reactions, the base is \( OH \) and the solvent is water, in which case the rate law simplifies to

\[
\text{rate} = k[\text{substrate}][\text{base}]
\]

which is indistinguishable from the rate law of E2 reactions.

see also E1 mechanism, E2 mechanism, Hofmann Rule

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