

Application Note

A-23

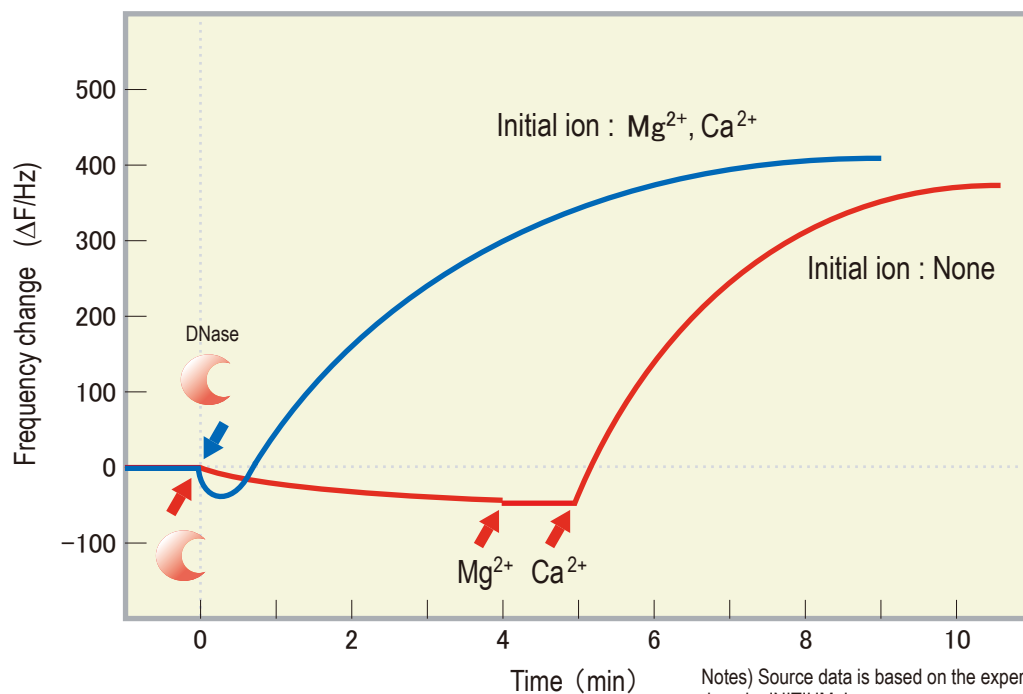
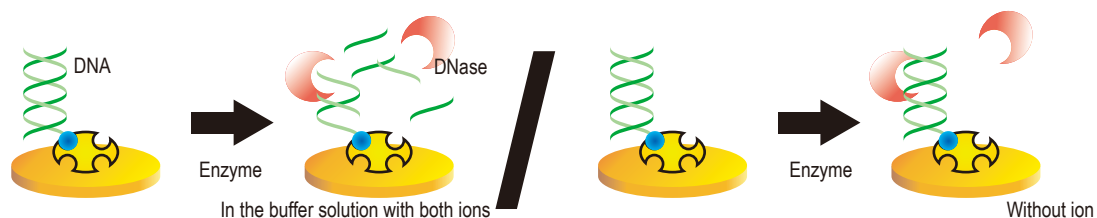
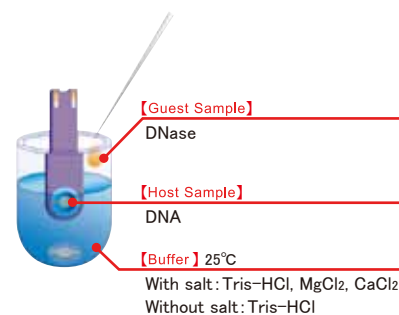
Examination of Essential Ion for Enzyme Reaction

Materials

1. Double strand DNA
2. DNase
3. Mg^{2+}
4. Ca^{2+}

Results

1. Enzyme bound onto DNA and reacted in buffer solution with ion.
2. Only DNase binds onto DNA in the buffer solution without ion.
3. DNA cleavage reaction occurs in the buffer solution with both Mg^{2+} and Ca^{2+} .
4. Cleavage reaction never occurred in the buffer solution with one ion only.



Applications

1. Examination of essential ions and factors for enzyme reaction.
2. Decision of order that each molecule reacts.
3. Indirect detection methods to measure the binding of ions.