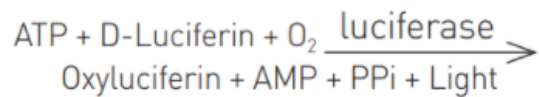


Assay Principle

The reaction is catalyzed by the enzyme luciferase obtained from the firefly (*Photinus pyralis*). The MgATP^{2-} converts the luciferin into a form which is capable of being catalytically oxidized by the luciferase in a high quantum yield chemiluminescent reaction, according to the following equation:



Under optimum conditions, light intensity is linearly related to ATP concentration. Cellular ATP can be measured by direct lysis of the cells with suitable detergent, the released ATP is then free to react with the luciferin-luciferase and leading to light emission at 562 nm.

