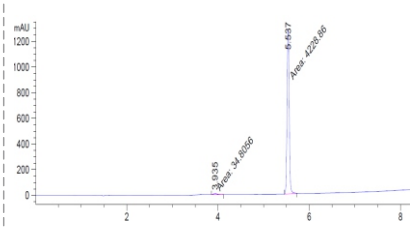
D-luciferin potassium salt

The luminescence produced by the reaction of luciferase with luciferin substrate is mostly used in bioluminescence imaging. The use of luciferase gene to label cells and the detection of fluorescence intensity after injection of luciferase substrate allow real-time monitoring of the growth of target cells and the drug medication effect. Since ATP is also involved in the fluorescence reaction, the effect of ATP on the system can also be introduced to indicate energy or life state.

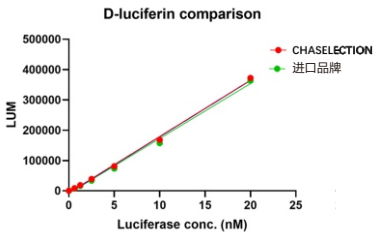
Principle: Luciferase catalyzes the oxidative decarboxylation of D-luciferin potassium salt in ATP, Mg^{2}+ and O_2, and emits blue-green fluorescence with a wavelength of 560 nm on average. The number of photons produced by adding excess luciferin potassium salt is positively correlated with the concentration of luciferase. Easy operation and accurate quantification make it very widely used in biotechnology, especially in the field of in vivo imaging and reporter gene technology.

Product Advantages

High purity (HPLC-verified purity ≥99%)



Excellent bioluminescence performance



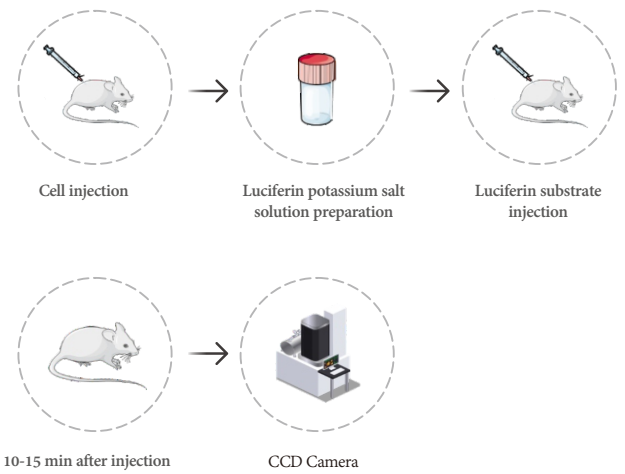
High solubility (> 40 mg/mL)

Free acidluciferin has poor solubility, while those in potassium salt form showed good water solubility. The high purity D-luciferin potassium salt developed by Chaselection has a solubility in water up to 40 mg/mL or above.

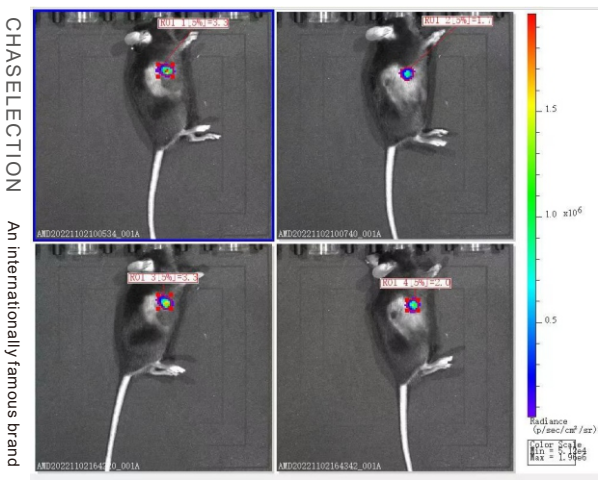
Product Application

- In vivo imaging
- Reporter gene assay
- Cell viability testing

Procedures for use in vivo imaging



Example of vivo imaging



Order Options

Cat No.	Name	Size
CY057F0100	D-luciferin potassium salt	0.1g
CY057F1000	D-luciferin potassium salt	1g