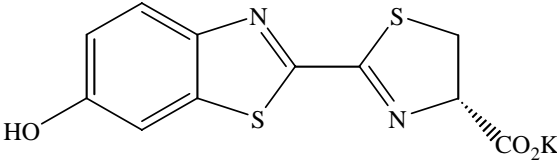


Instruction Manual

Catalog Number	PK-CA707-10101-2
Description	D-Luciferin is a natural compound isolated from fireflies and is a substrate for the enzyme luciferase. Chemiluminescence at 560 nm is generated when luciferin is oxidized by an ATP-dependent process, catalyzed by luciferase. Luciferase is encoded by the luc gene, which is widely used as a reporter gene in a variety of cells. Because of the intrinsic low background of chemiluminescence technique, detection of the luc gene expression can be made at very low level. In addition, luciferin/luciferase has been used to measure 10^{-15} molar quantity of ATP.
Quantity	1 g
Excitation / Emission Maxima	$\lambda_{ex}\lambda_{em} = 328/533$ nm Extinction Coefficient: 17,000
Molecular Structure	
Molecular Weight / Molecular Formula	318.4 Da; $C_{11}H_7KN_2O_3S_2$
Purity	>99% (as determined by HPLC)
Appearance / Formulation / Solubility	Water-soluble form of D-luciferin. Light yellow solid; readily soluble in water (pH >6). Avoid alkaline or strongly acidic solution.
Storage & Stability	Store at -20°C. Protect from light.
Applications	Luciferase assays (e.g. with the Firefly luciferase reporter gene)
References	BioTechniques 7, 1116(1989) Lett. Appl. Microbiol. 1, 208(1990)
Caution	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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