Datasheet

Cat. No. P2011

Luciferase (1-550, His-tag)

Information

Accession #	-
Alternate Names	Recombinant firefly Luciferase
Species	Photinus Pyr.
Source	*Escherichia coli.*
Protein sequence	-
Tag	His-tag
M.Wt	Approximately 61.2 kDa
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -80°C as supplied. - 2 weeks, 2 to 8°C under sterile conditions after reconstitution.
Concentration	1.0 mg/mL
Formulation	Dissolved in sterile PBS buffer.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	-
Shipping Condition	Blue ice
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	500 μg	1 mg
Luciferase (1-550, His-tag) Photinus Pyr. Protein	500 μg	1 mg

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- 12 months from date of receipt, -80°C as supplied.
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Quality Control

Purity	≥ 95% by SDS-PAGE and HPLC analyses.

Description

Luciferase (1-550, His-tag) is an enzyme expressed from a cloned gene derived from the North American firefly (Photinus pyralis). Luciferase catalyzes the luminescence of the substrate. This reaction requires the substrate luciferin, magnesium ions (Mg^{2+}), and adenosine triphosphate (ATP), and produces green light with a wavelength of 562 nm.

Luciferase can be used to detect trace amounts of adenosine triphosphate (ATP). For example, using 0.2 micrograms of luciferase can detect less than or equal to one femtomole of ATP. It can also be used as a reporter gene, such as in the study of gene regulation and function, as well as in pharmaceutical screening. The bioluminescent reaction catalyzed by luciferase is one of the most sensitive analytical tools for measuring gene expression.

Reference

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