

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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### Luciferase (N-Terminus). Mouse Bi-Test™ Reagents (FITC/RPE)

#### BACKGROUND

Analysis of gene expression is most commonly assayed by transient transfection. Systems are generally based on the use of fusion genes which are inserted into cells, and the gene expression is assayed within 48 hours after introduction of DNA. Usually the fusion consists of the promoter binding site or enhancer sequence under study which is attached to a reporter gene. The amount of the reporter protein synthesized under the experimental conditions, is presumed to reflect the ability of the sequences studied to direct or promote transcription. Several enzymes are commonly used as reporter proteins, among them are chloramphenicol acetyl transferase (CAT), β-galactosidase, human growth hormone (hGH) and luciferase. Luciferase has become one of the widely used reporter enzymes. The enzyme catalyzes a bioluminescent reaction which requires the substrate luciferin as well as Mg<sup>+2</sup> and ATP. Mixing these reagents with the cell extract containing luciferase, results in a flash of light that decays rapidly. This light can be detected by a luminometer. The total light emission is proportional to the luciferase activity of the sample. The use of an antibody to detect luciferase can provide an alternative detection assay which directly detects luciferase protein levels, and thus has the advantage that it does not require luciferase activity and is not dependent on rapid kinetics. Moreover, antibodies can detect the luciferase enzyme expression in situ, providing a means to study the localized signal sequences using luciferase as a reporter gene.

#### **ORDERING INFORMATION**

CATALOG NUMBER

X1171M

SIZE

 $100 \mu g$ **FORM** 

Unconjugated

HOST/CLONE

Mouse Clone Luci17

**FORMULATION** 

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE lgG1

**APPLICATIONS** 

Western Blot, Immunohistochemistry

SPECIES REACTIVITY

Luciferase (Firefly) Protein

**ACCESSION NUMBER** 

#### **I**MMUNOGEN

Hybridoma produced by the fusion of splenocytes from mice immunized with luciferase protein isolated from Photinus pyralis.

Western blot analysis using Luciferase antibody (Cat. No. X1171M) on recombinant luciferase protein.





#### Positive Control/Tissue Expression

Purified luciferase protein

#### **COMMENTS**

Detects luciferase protein by Western blot in C. elegans and Drosophilia melanogaster tissues, human fibroblast, mouse macrophage, kidney, liver and cortex as well as NIH3T3, Jurkat and BHR21 cell lines. Detects luciferase with little to no background signal. Optimal concentration should be evaluated by serial dilutions.

#### PURIFICATION

Protein A/G Chromatography

#### SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

#### STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

#### STABILITY

Products are stable for one year from purchase when stored properly

#### REFERENCES

- 1. Aoki, Y., et al. Selective stimulation of G-CSF gene expression in macrophages by a stimulatory monoclonal antibody as detected by a luciferase reporter gene assay. J. Leukoc. Biol. 2000, 68, 757-764
- 2. Nicolas, M.T., et al. Immunogold labeling of luciferase in the luminous bacterium Vibrio Harveyi after fast-freeze fixation and different freeze-substitution and embedding procedures. J. Histochem. Cytochem. 1989, 37, 663-674

PRODUCT SPECIFIC REFERENCES