

Phospha-Light™ Secreted Placental Alkaline Phosphatase Reporter Gene Assay System

- Detect secreted placental alkaline phosphatase reporter protein without destroying valuable cells
- Monitor and optimize transfections with an easy, fast, and sensitive assay
- Ideal for in vivo reporter gene assays

Applications

The Phospha-Light system enables a large number of applications in life science research including:

- Gene expression in cell lines and primary cells
- Gene expression knockdown as a measure of RNA interference
- Viral gene expression, replication, infectivity, fusogenicity, and viral mediated cell-cell fusion
- In vivo reporter gene assays
- Vaccine development
- Development of gene delivery methods for gene therapy
- Additional applications requiring a fast, sensitive and easy method for detecting placental alkaline phosphatase (AP) such as detecting placental AP tagged fusion proteins, secretion pathways, protease assays and monitoring protein expression.

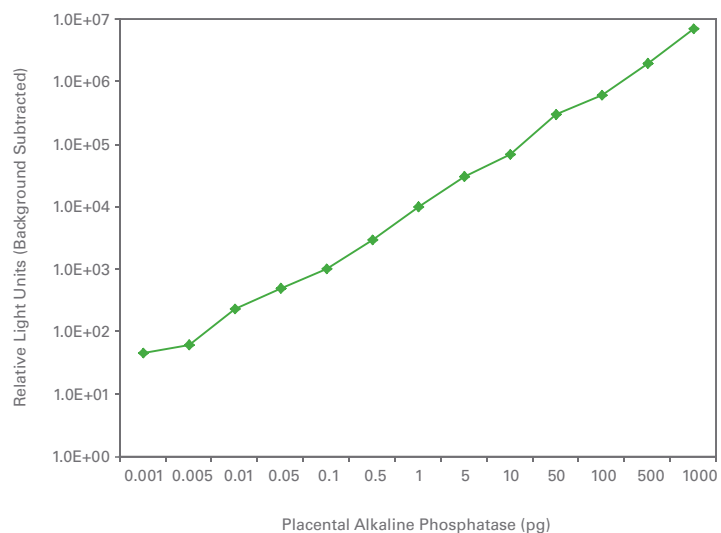


Figure 1. Detection of Placental Alkaline Phosphatase with Phospha-Light™ System.

Phospha-Light™ assay system is a chemiluminescent reporter gene assay for the sensitive detection of secreted placental alkaline phosphatase (SEAP). SEAP is a reporter protein that is secreted into the cell culture medium. Aliquots of the medium are taken for assay without disturbing the cells in culture.

The system consists of CSPD® high performance chemiluminescent substrate, Emerald™ luminescence enhancer, and a unique buffer system designed to differently inhibit endogenous alkaline phosphatase activity.

The assay is accomplished in 3 to 4 easy steps:

1. Cell culture medium is transferred to a microplate containing dilution buffer
2. If the culture medium contains serum, heat at 65°C for 30 min (may be omitted, if serum free)
3. Add assay buffer and incubate 5 min
4. Add substrate solution, incubate 30 min and read in luminometer

Product Configuration

Phospha-Light™ System Standard Size

T1015

Capacity: 200 single tube assays (triplicate assays of 66 samples or duplicate assays of 83 samples)

Capacity: 400 assays with microplate format (triplicate assays of 133 samples or duplicate assays of 166 samples)

Contents:

- 1.0 mL CSPD® chemiluminescent substrate
- 19 mL Phospha-Light™ Reaction Buffer Diluent with Emerald™ enhancer
- 20 mL Phospha-Light™ Assay Buffer
- 5 mL 5X Dilution Buffer
- 50 µL Positive Control Placental Alkaline Phosphatase

Phospha-Light™ System Large Size

T1017

Capacity: 600 single tube assays (triplicate assays of 200 samples or duplicate assays of 250 samples)

Capacity: 1,200 assays with microplate format (triplicate assays of 400 samples or duplicate assays of 500 samples)

Contents:

- 3.0 mL CSPD® chemiluminescent substrate
- 57 mL Phospha-Light™ Reaction Buffer Diluent with Emerald™ enhancer
- 60 mL Phospha-Light™ Assay Buffer
- 15 mL 5X Dilution Buffer
- 50 µL Positive Control Placental Alkaline Phosphatase

Phospha-Light™ System Screening Size

T1016

Capacity: 10,000 assays with microplate format (triplicate assays of 3,333 samples or duplicate assays of 4,166 samples)

Contents:

- 25 mL CSPD® chemiluminescent substrate
- 475 mL Phospha-Light™ Reaction Buffer Diluent with Emerald™ enhancer
- 500 mL Phospha-Light™ Assay Buffer
- 125 mL 5X Dilution Buffer
- 425 µL Positive Control Placental Alkaline Phosphatase

Features

Detects secreted reporter enzyme

Wide dynamic range – femtograms to nanograms

Chemiluminescent assay format

1 hour assay time

Unique buffer system

“Glow” light signal kinetics

Benefits

Eliminates need to prepare cell extracts
Allows monitoring over time
Preserves intact cells for further experimentation
Useful for transfection efficiency normalization

Eliminates need for multiple sample dilutions
Enables efficient use of assay reagents

High sensitivity - 1000 times more sensitive than colorimetric detection
Compatible with tube and microplate luminometers

Rapid turnaround
Higher throughput

Inhibits endogenous nonplacental AP activity and AP from serum containing culture medium

Permits use of luminometers without injectors

ORDERING INFORMATION

Package Size	P/N	96-well microplate assays	Single-tube assays
Standard Size	T1015	400	200
Large Size	T1017	1200	600
Screening Size	T1016	10,000	5000

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