

# EbbaBiolight

## General Information

**EbbaBiolight** are optotracers for detection of bacteria & components of bacterial biofilm.

**EbbaBiolight** molecules allow direct visualisation of bacteria or bacterial biofilm, without using antibodies or any toxic chemicals. The molecules become highly fluorescent when bound to a target, are non-toxic, and do not interfere with bacterial growth or biofilm formation at recommended concentrations so **EbbaBiolight** can be added to live cultures to track bacterial growth or biofilm formation in real-time using spectrophotometric analysis. Further, **EbbaBiolight** are photo- and thermostable and allow for easy handling in any application.

We offer the **EbbaBiolight** optotracers in five different variants that might be screened for applications in various bacterial species and strains. All molecules are available in aliquots of 50 µl, 100 µl, 150 µl or 200 µl (all delivered in 50 µl vials). We also offer an **EbbaBiolight Mix&Try** kit, that contains 10 µl of each of the five optical tracer molecules from the **EbbaBiolight** series.

## Quick Facts

**EbbaBiolight** optotracer molecules are:

- Provided as 1 mg/ml solution in volumes of 50 µl, 100 µl, 150 µl and 200 µl
- Should be diluted 1000-fold before use
- Non-toxic
- Photo- and thermostable

## Quickstart Guide

Depending on the bacterial species or strain, **EbbaBiolight** optotracer molecules will bind to components in the bacterial biofilm. We recommend to follow this Quickstart Guide when using any of the **EbbaBiolight** molecules for the first time.

- Dilute **EbbaBiolight** 1:1000 in growth medium (pH 7.4).
- Dilute a bacterial over-night culture 1:100 with growth medium containing **EbbaBiolight**.
- Fill (at least) two wells of a 96-well microtiter plate with 100 µl of the diluted over-night culture containing **EbbaBiolight**.
- Prevent drying by filling unused wells with sterile water and seal the plate with a cover or adhesive.
- Incubate the plate at optimal growth temperature and measure absorbance as well as fluorescence at regular intervals during a period of at least 48h.
- Take samples (10 µl) during exponential- and stationary phase and pipet onto a microscope slide for imaging. Cover with a glass coverslip and seal the edges to prevent drying. Image at recommended excitation/emission to detect fluorescent bacteria or biofilm.

## Storage

- Store **EbbaBiolight** at 4°C.
- Use the opened vial within 12 month.

## Note

- **EbbaBiolight** is for research use only.
- **EbbaBiolight** is not for diagnostic use or use in humans.
- **EbbaBiolight** is not for resale.

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### Stockholm Branch

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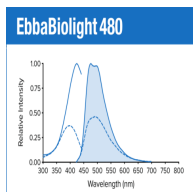
### Company Information

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### Contact

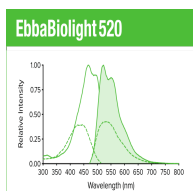
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# EbbaBiolight Product Series



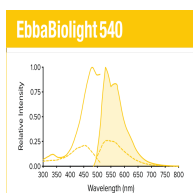
**EbbaBiolight 480** - blue optotracer molecule for probing and detecting bacteria and biofilm.

Use any type of fluorescence microscopy equipment (confocal microscope, spectroscopy or spectrophotometer) to detect and visualize the fluorescence of **EbbaBiolight 480** when bound to a target in the bacterial membrane or extracellular matrix. **EbbaBiolight 480** has an optical spectrum that allows custom settings within the detection range of 470-550 nm and excitation range of 405-458 nm. Emission can be detected at 480 nm using the standard DAPI filter set filter set when excited using the 405 nm laser line.



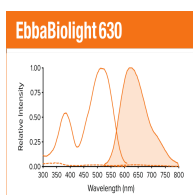
**EbbaBiolight 520** - green optotracer molecule for probing and detecting bacteria and biofilm.

Use any type of fluorescence microscopy equipment (confocal microscope, spectroscopy or spectrophotometer) to detect and visualize the fluorescence of **EbbaBiolight 520** when bound to a target in the bacterial membrane or extracellular matrix. **EbbaBiolight 520** has an optical spectrum that allows custom settings within the detection range of 500-600 nm and excitation range of 405-488 nm. Emission can be detected at 520 nm using the standard FITC or GFP filter set when excited using the 458 or 488 nm laser line.



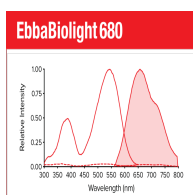
**EbbaBiolight 540** - green/yellow optotracer molecule for probing and detecting bacteria and biofilm.

Use any type of fluorescence microscopy equipment (confocal microscope, spectroscopy or spectrophotometer) to detect and visualize the fluorescence of **EbbaBiolight 540** when bound to a target in the bacterial membrane or extracellular matrix. **EbbaBiolight 540** has an optical spectrum that allows custom settings within the detection range of 530-600 nm and excitation range of 430-500 nm. Emission can be detected at 540 nm using the standard FITC, GFP or YFP filter set when excited using the 440 nm laser line.



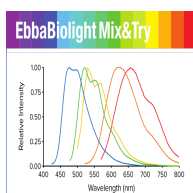
**EbbaBiolight 630** - orange optotracer molecule for probing and detecting bacteria and biofilm.

Use any type of fluorescence microscopy equipment (confocal microscope, spectroscopy or spectrophotometer) to detect and visualize the fluorescence of **EbbaBiolight 630** when bound to a target in the bacterial membrane or extracellular matrix. **EbbaBiolight 630** has an optical spectrum that allows custom settings within the detection range of 600-650 nm and an excitation range of 458-514 nm. Emission can be detected at 630 nm using the standard PI (Propidium Iodide), Cy3, TxRed, mCherry or Cy3.5 filter set and excitation is achieved using the 488 or 514 nm laser line.



**EbbaBiolight 680** - red/far-red optotracer molecule for probing and detecting bacteria and biofilm.

With exceptionally high signal-to-noise ratio and spectral properties that are clearly distinguishable from biological autofluorescence, we especially recommend **EbbaBiolight 680** for tracking of biofilm in live cultures. Use any type of fluorescence microscopy equipment (confocal microscope, spectroscopy or spectrophotometer) to detect and visualize the fluorescence of **EbbaBiolight 680** when bound to a target in the bacterial membrane or extracellular matrix. **EbbaBiolight 680** has an optical spectrum that allows custom settings within the detection range of 600-800 nm and an excitation range of 530-565 nm. Emission can be detected at 680 nm using the standard PI (Propidium Iodide), mCherry or Cy3.5 filter set and excitation is achieved using the 561 nm laser line.



**EbbaBiolight Mix&Try** - Test Kit for Getting Started

**EbbaBiolight Mix&Try** contains 10 µl each optotracer molecule available in the **EbbaBiolight** series.

Following fluorescent tracer molecules are included in the **EbbaBiolight Mix&Try** kit:

- **EbbaBiolight 480** (Excitation: 405-458 nm, Emission: 470-550 nm, Emax = 480 nm)
- **EbbaBiolight 520** (Excitation: 405-488 nm, Emission: 500-600 nm, Emax = 520 nm)
- **EbbaBiolight 540** (Excitation: 430-500 nm, Emission: 530-600 nm, Emax = 540 nm)
- **EbbaBiolight 630** (Excitation: 458-514 nm, Emission: 600-650 nm, Emax = 630 nm)
- **EbbaBiolight 680** (Excitation: 530-565 nm, Emission: 600-800 nm, Emax = 680 nm)

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