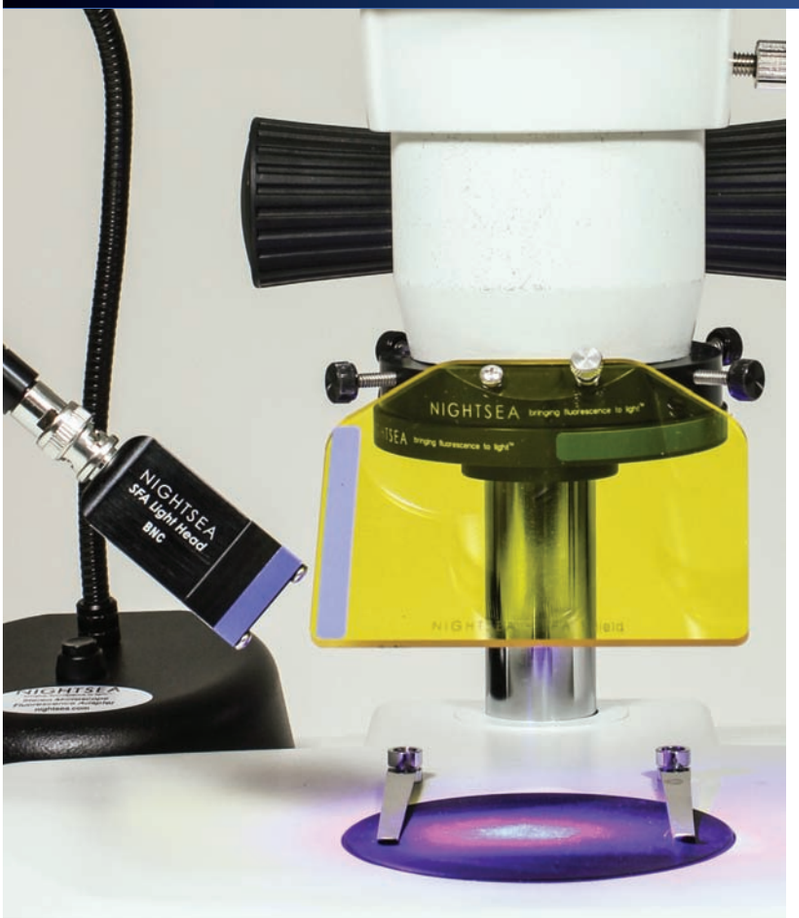


NIGHTSEA™ Stereo Microscope Fluorescence Adapter

Adapt your existing lab stereo microscopes for fluorescence

The NIGHTSEA Stereo Microscope Fluorescence Adapter adapts just about any stereo microscope (dissecting microscope) for fluorescence with no modification to the microscope itself. The modular design lets you easily switch between several different excitation/emission combinations to work with a variety of fluorescent proteins and other fluorophores. There are now five different excitation/emission combinations available, plus white light.

Applications

This simple system is excellent for:

- Quick screening of your fluorescent genotypes - Drosophila, zebrafish, C. elegans...
- Genotype sorting
- Fluorescence-aided dissection, injection, or micromanipulation
- Freeing up your research-grade fluorescence microscopes for more demanding work
- New faculty start-up budgets
- Bringing fluorescence into the teaching laboratory

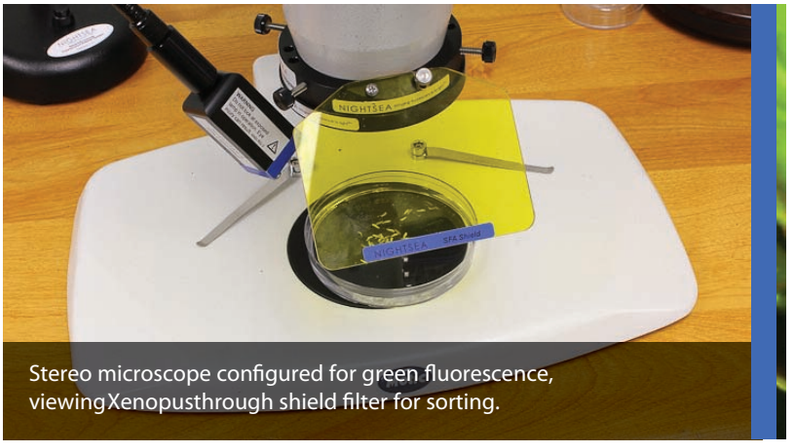
The Stereo Microscope Fluorescence Adapter system consists of:

- Flexible gooseneck lamp base with power supply
- Light head
- Ring adapter for microscope
- Barrier filter
- Filter shield

The light head, barrier filter, and filter shield are interchangeable so that you can easily switch between excitation/emission light+filter combinations.

The microscope mounting adapter fits up to 67mm to work with the majority of stereo microscopes.

Once you are set up for one excitation/emission wavelength combination, additional combinations can be added by purchasing a kit that consists of a light head, barrier filter, and viewing shield. These three elements can be removed and replaced in seconds, and color coding ensures that you are using the right combination. The barrier filter clicks on to the ring adapter magnetically, so it is easy to remove it to switch back to white light viewing.



Stereo microscope configured for green fluorescence, viewing Xenopus through shield filter for sorting.

Fluorescence isn't just for research microscopes anymore...

Now sort on your laboratory-level stereos
Use to facilitate micromanipulation and dissection
Expand from your research lab to your classroom

Modular...

Installs in seconds - just clicks into place
Interchangeable excitation/emission combinations
Move from microscope to microscope
No modification to your microscope needed

Economical — More Glow for the Dough...

Stretch your lab budget
Inexpensive enough for classroom use

Grows as your lab grows...

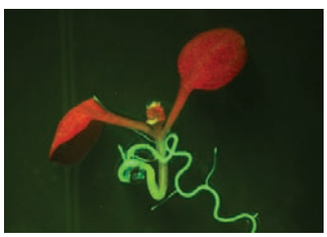
Buy just what you need now (up to 5 different wavelength sets)
Add more as your needs expand

A.I.S. Australian Instrument Services Pty Ltd

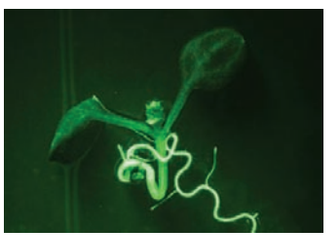
NIGHTSEA™ Stereo Microscope Fluorescence Adapter

Green-Only Barrier Filter

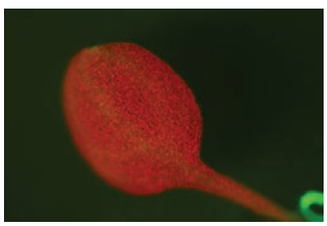
We are now offering an additional barrier filter option for the Stereo Microscope Fluorescence Adapter. The new filter isolates the green part of the spectrum and is for use with the Royal Blue excitation source. While our other barrier filters are long-pass filters this new filter is a bandpass, transmitting from approximately 500 to 560nm. The long-pass filter has served well for most users who need to visualize green-fluorescent protein (GFP), and if you are exploring fluorescence in nature it is preferable. The primary motivation for adding the green-only filter to the line-up was for the benefit of researchers using GFP in plants such as Arabidopsis thaliana, a common research model. Plants contain chlorophyll, which has a distinctive red fluorescence that can sometimes mask the GFP emission, making it harder to see and photograph.



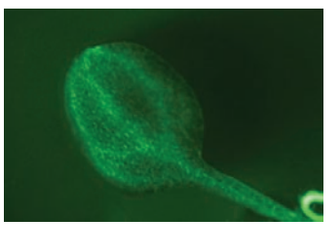
Arabidopsis fluorescence imaged with long-pass filter



Arabidopsis fluorescence imaged with bandpass filter



Arabidopsis fluorescence imaged with long-pass filter



Arabidopsis fluorescence imaged with bandpass filter

We tested this new barrier filter with Arabidopsis supplied by Dr. Chip Celenza (Department of Biology, Boston University). These plants express GFP in the roots and vasculature. The images below show examples of plants photographed with the long-pass filter (left) and green-only filter (right). There is no chlorophyll in the roots so the GFP is evident there in both images, but the weaker expression in the leaves is much more apparent in the images on the right.

Specifications

Filter Set	Excitation	Emission	Fluorophores
RB – Royal Blue	440-460nm	500nm LP	GFP, eGFP, fluorescein...
RB-GO	440-460nm	500-560nm BP	GFP, eGFP, fluorescein...
CY – Cyan	490-515nm	550nm LP	YFP, Venus, Lucifer Yellow...
GR – Green	510-540nm	600nm LP	DsRed, dTomato...
VI – Violet	400-415nm	460nm LP	CFP
UV – Ultra Violet	360-380nm	415nm LP	DAPI

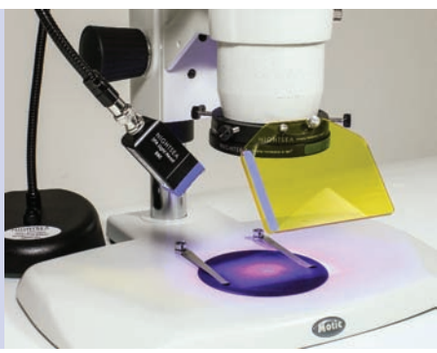
Microscope Mounting Adapter — fits up to 67mm standard.

Ordering Information

Adapter system:

Full system with one illumination color consisting of:

- Lamp Base with Power Supply
- Light Head-Royal Blue, Cyan, Green, or Violet
- Microscopy Mounting adapter
- Barrier Filter
- Viewing Shield



Cat No.	Description	Qty.
SFA-RB	Full System with Royal Blue	each
SFA-RB-GO	Full System with Royal Blue Light Head, Green-Only Barrier Filter	each
SFA-CY	Full System with Cyan	each
SFA-GR	Full System with Green	each
SFA-VI	Full System with Violet	each
SFA-UV	Full System with Ultra Violet	each