



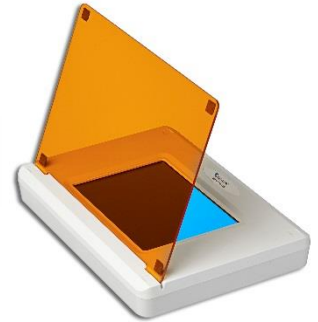
Technical Bulletin

DNA Staining and Imaging

SMART
SAFE Nucleic Acid Stain
GLOW 



SMARTBLUE™



When separating DNA via electrophoresis, it is most common for the gels to be stained so the DNA bands can be visualized.

There are many options for DNA staining, including the very common, yet hazardous Ethidium Bromide (EtBr). This stain is inexpensive and widely used, but it is a known mutagen so many scientists are switching to less toxic options such as the **Accuris SmartGlow™ stains**.

In addition, EtBr is usually viewed on a UV transilluminator. UV light can damage the DNA in the gel, and is also hazardous to lab personnel, so scientists are very interested in visible light options, such as the new Accuris SmartBlue, blue light transilluminator.

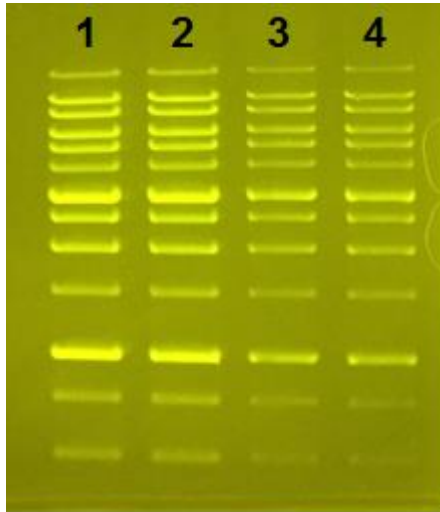
The following page provides some sample gel images to show typical staining results. All photos taken using the Accuris SmartDoc imaging enclosure with an iPhone 6 camera.

Literature and FAQ's are available from Benchmark and at the Accuris website: www.accuris-usa.com.

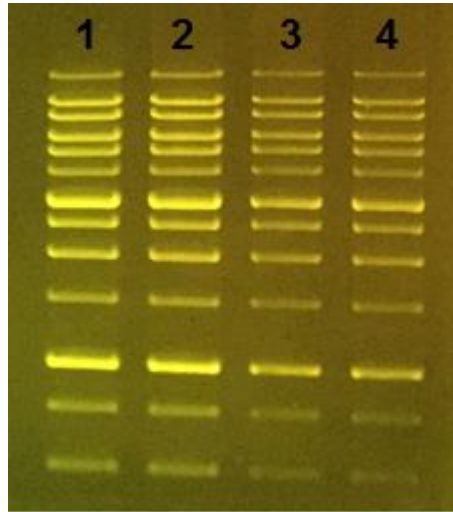
Or feel free to contact Benchmark Technical Support at 908-769-5555, or email us at info@benchmarkscientific.com.

DNA Visualization using SmartGlow™ PS and EtBr with UV and Blue Light excitation

Accuris SmartGlow PS stain is compatible with the SmartBlue™, visible blue light transilluminator and also works well with common UV transilluminators:

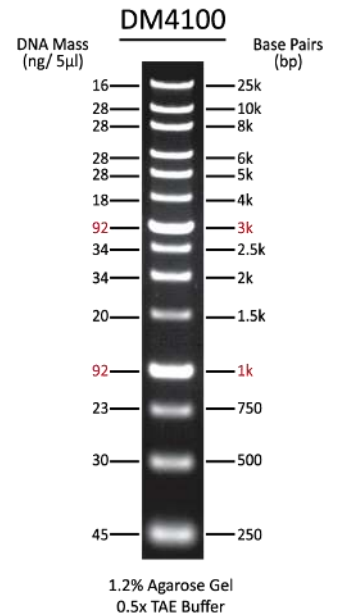


DNA ladder stained with SmartGlow PS visualized on **SmartBlue** Transilluminator

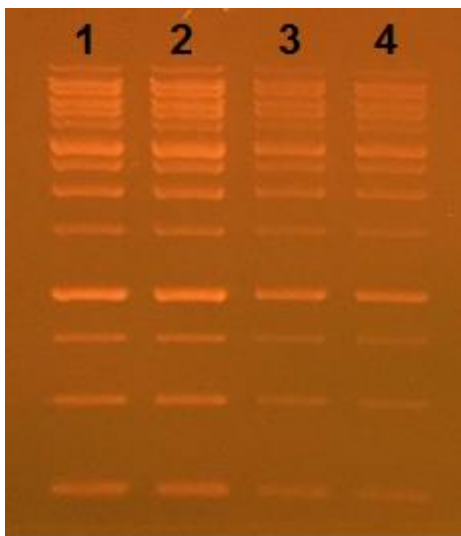


DNA ladder stained with SmartGlow PS visualized on **UV** Transilluminator

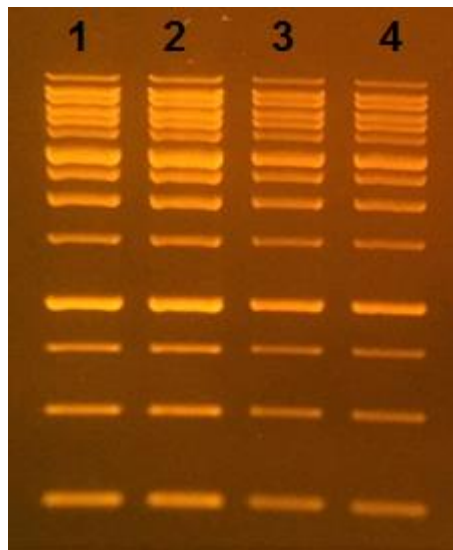
DNA Ladder used:



For labs that don't want to switch from EtBr: They can still use the *safe* and *economical* SmartBlue blue light transilluminator for EtBr stained gels instead of using UV light:



DNA ladder stained EtBr visualized on **SmartBlue** Transilluminator



DNA ladder stained EtBr visualized on **UV** Transilluminator

Volume of ladder:

- Lane 1: 5ul
- Lane 2: 5ul
- Lane 3: 2.5ul
- Lane 4: 2.5ul

Note: recommended volume per lane is 5ul. Lanes 3 and 4 use 2.5ul to demonstrate sensitivity.