Applied BioProbes
Reagents for Life Sciences
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Product Information

Andy Gold™ Nucleic Acid Gel Stain, 10,000X

Catalog Number	Packaging Size
N003A	200 µL in DMSO
N003B	500 µL in DMSO

Storage upon receipt:
- 2-25℃
- Protect from light

Ex/Em: 500/530 nm, bound to nucleic acid

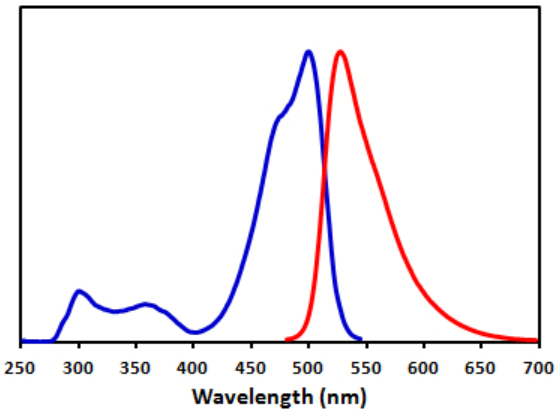
Product Description

Andy Gold is a highly sensitive fluorescent stain for detecting nucleic acids in agarose and polyacrylamide gels. This single stain gives high sensitivity detection of double-stranded or single-stranded DNA and RNA. Gels can be post-stained or alternatively the stain can be added to agarose gels during gel casting. Andy Gold is compatible with a standard 300 nm transilluminator, a 254 nm transilluminator, a blue-light transilluminator, or a gel reader equipped with visible light excitation such as a 488 nm laser-based gel scanner.

Andy Gold Nucleic Acid Gel Stain, 10,000X is a concentrated Andy Gold solution that can be diluted 10,000 times for use in precast gel staining or 5,000 times for use in post gel staining according to the procedures described below. One vial (500 µL) of 10,000X solution can be used to prepare at least 100 precast minigels or post-stain at least 100 minigels.

Gel staining with Andy Gold is compatible with downstream applications such as gel extraction and cloning. Andy Gold is efficiently removed from DNA by phenol/chloroform extraction and ethanol precipitation.

Spectral Characteristics



Excitation (blue) and emission spectra (red) of Andy Gold bound to dsDNA in TBE buffer

Staining Protocols

1. Post-staining Protocol

1.1 Run gels as usual according to your standard protocol.

1.2 Dilute the Andy Gold 10,000X stock reagent 5,000 fold to make a 2X staining solution in TE, TBE, or TAE buffer.

1.3 Carefully place the gel in a suitable polypropylene container. Gently add a sufficient amount of the 2X staining solution to submerge the gel.

1.4 Agitate the gel gently at room temperature for 30 min.

1.5 Wash the gel with DI water to remove excess dye. Image the stained gel with a transilluminator, or a laser-based gel scanner using a long path green filter such as a SYBR Filter or GelStar filter.

2. Pre-cast Protocol

2.1 Prepare molten agarose gel solution using your standard protocol.

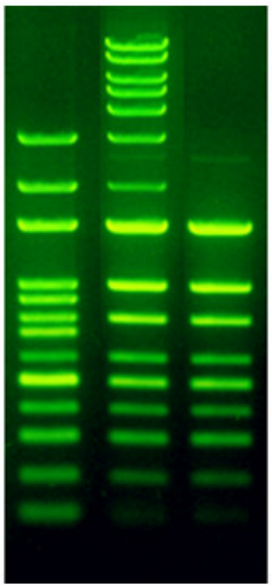
2.2 Dilute the Andy Gold 10,000X stock reagent into the molten agarose gel solution at 1:10,000 and mix thoroughly.

2.3 Cast the gel and allow it to solidify.

2.4 Load samples and run the gels using your standard protocol.

2.5 Image the stained gel with a transilluminator, or a laser-based gel scanner using a long path green filter such as a SYBR Filter or GelStar filter.

Note: The pre-cast protocol is not recommended for polyacrylamide gels. Use the post staining protocol for acrylamide gels.



Andy Gold in post gel staining

Related Products

Catalog No.	Product
N001A	Andy Safe™ Nucleic Acid Gel Stain, 10,000X in H_2O, 200 µL
N001B	Andy Safe™ Nucleic Acid Gel Stain, 10,000X in H_2O, 500 µL
N002A	Andy Safe™ Nucleic Acid Gel Stain, 10,000X in DMSO, 200 µL
N002B	Andy Safe™ Nucleic Acid Gel Stain, 10,000X in DMSO, 500 µL
N004A	Andy Red™ Nucleic Acid Gel Stain, 10,000X in H_2O, 200 µL
N004B	Andy Red™ Nucleic Acid Gel Stain, 10,000X in H_2O, 500 µL
N005A	Gel Safe™ Nucleic Acid Gel Stain, 10,000X in DMSO, 200 µL
N005B	Gel Safe™ Nucleic Acid Gel Stain, 10,000X in DMSO, 500 µL
N006A	Gel Green I™ Nucleic Acid Gel Stain, 10,000X in DMSO, 200 µL
N006B	Gel Green I™ Nucleic Acid Gel Stain, 10,000X in DMSO, 500 µL
N007A	Gel Green II™ Nucleic Acid Gel Stain, 10,000X in DMSO, 200 µL
N007B	Gel Green II™ Nucleic Acid Gel Stain, 10,000X in DMSO, 500 µL
N008A	GLumino Green™ Nucleic Acid Gel Stain, 10,000X in DMSO, 200 µL
N008B	GLumino Green™ Nucleic Acid Gel Stain, 10,000X in DMSO, 500 µL
N009A	GLumino Red™ Nucleic Acid Gel Stain, 10,000X in DMSO, 200 µL
N009B	GLumino Red™ Nucleic Acid Gel Stain, 10,000X in DMSO, 500 µL

Troubleshooting

Problem	Suggestion
Smeared DNA bands in precast gel	1. Reduce the amount of DNA loading. Smeared bands can be caused by overloading. 2. Perform post-staining instead of pre-casting. 3. Prepare a lower percentage agarose gel for better resolution of large fragments. 4. Change the running buffer. TBE buffer has a higher buffering capacity than TAE.
Discrepant DNA migration in precast gel	1. Reduce the amount of DNA loading. 2. Reduce the amount of dye used, i.e. use 0.5X in precast gels. 3. Perform post-staining instead of pre-casting.
Weak fluorescence signal	1. The dye may be precipitated out of solution. Vortex to redissolve. 2. Increase the amount of dye used, i.e. use 2X in precast gels..

Frequently Asked Questions

Question	Answer
Can Andy Gold be used to stain ssDNA or RNA?	Yes.
Is Andy Gold compatible with downstream applications such as cloning, ligation and sequencing?	Yes. We recommend Qiagen or Zymo gel extraction kits or phenol-chloroform extraction to remove the dye from DNA.
Is Andy Gold compatible with Southern or Northern blotting?	Andy Gold has not been validated in blotting applications.
Can I reuse an Andy Gold precast gel after electrophoresis?	We do not recommend reusing Andy Gold precast gels as signal decreases with subsequent electrophoresis.
What is the lower detection limit of Andy Gold?	Some users have reported being able to detect less than 50 pg DNA. However, the limit of detection will depend on instrument capability and exposure settings.
Does Andy Gold need to be used in the dark?	You can use the dye in room light, however we recommend storing the dye in the dark.