

Nova ClearSight DNA Stain
New and non-carcinogenic stain
Reference: AB15036



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INTENDED USE AND PRESENTATION:

This Ethidium bromide alternative is widely used in molecular biology research.

AB15036, 1 mL.

For research use only.

SUMMARY, EXPLANATION AND LIMITATIONS:

Nova ClearSight DNA Stain is a new nucleic acid stain that can be used as a safer alternative to the traditional Ethidium bromide stain for detecting nucleic acids in agarose gels. It is as sensitive as Ethidium bromide and can be used exactly the same way in agarose gel electrophoresis.

Nova ClearSight DNA Stain emits green fluorescence when bound to DNA or RNA. It has two secondary fluorescence excitation peaks (~270 nm; ~290 nm) and one strong excitation peak centered around 490 nm. The fluorescence emission is centered at ~530 nm. Thus, Nova ClearSight DNA Stain is compatible with a wide variety of gel reading instruments.

Nova ClearSight DNA Stain can be used for precast agarose gels and when better sensitivity is needed - poststaining is recommended.

APPLICATIONS:

Non-carcinogenic alternative to Ethidium bromide. Nova ClearSight DNA Stain is non-carcinogenic and according to the Ames test it causes significantly fewer mutations than Ethidium bromide.

PRODUCT COMPOSITION:

1 ml of Nova ClearSight DNA Stain is sufficient for 17-25 L of agarose gel.

METHODS AND PROCEDURE:

The thickness of gel should < 0,5 cm. Repeated melting of gels containing Nova ClearSight DNA Stain may result in low sensitivity. This DNA Stain is non-carcinogenic but may irritate skin and eyes. Please wear gloves while handling.

Precasting:

1. Prepare 100 mL of agarose gel solution (concentration from 0,8-3,0%) and heat until the solution is completely clear and no small floating particles are visible.
2. Add 4-6 µL of Nova ClearSight DNA Stain to the gel solution and mix it gently.
3. Cool the gel to 50-60°C and cast the gel, into the gel tray.
4. When the gel is solid, load the samples and perform electrophoresis.
5. Detect the bands under UV illuminator.

Post-staining:

1. The Nova ClearSight post-staining solution may be used 2-3 times. Staining solution to be reused should be preferably stored at room temperature in the dark.

For <0,5 cm thick agarose gel, 10-25 uL of the stain should be used per 100 mL of buffer.

2. Optimal staining time (5 - 60 minutes) and the amount of the stain may depend on the thickness of the gel and the percentage of agarose.

REQUIRED MATERIALS BUT NOT SUPPLIED:

All reagents, materials, and laboratory equipment for PCR and determination procedures are not provided with this stain. This includes sterile reaction tubes, micropipettes and tips, template DNA, gen-specific PCR primer pair, dNTPs mixture, PCR grade H₂O, heat pretreatment equipment (thermoblock, microwave), centrifuge, cold store and thermal block cyler.

Buffered solutions for DNA extraction or purification, enzyme treatments, highly sensitive detection systems, and other auxiliary reagents are available from Gennova Scientific.

STORAGE AND STABILITY:

Store at -20°C until the expiration date printed on product label. Avoid prolonged exposure to light. Avoid multiple freeze-thaw cycles and exposure to frequent temperature changes. Do not use after the expiration date. If the product is stored under different conditions from those stipulated in these technical indications, the new conditions must be verified by the user. The validity period of the ready to use products when opened, is the same as the expiration date indicated on the label of intact product.

Gennova Scientific guarantees that the product will maintain all of the described characteristics from the production date until the expiration date, as long as the product is stored and used as recommended. No other guarantees are provided. Under no circumstances Gennova Scientific is obliged to cover damages caused by use of this reagent.

TROUBLESHOOTING:

If unusual banding is observed or any other deviations from the expected results, please read these instructions carefully, along with the instructions from the PCR and determination systems. If this does not solve the problem, please contact Gennova Scientific's technical support department (techsupport@gennovalab.com) or your local distributor.

PRECAUTIONS:

Use only by qualified personnel. Use proper protective equipment in order to avoid contact with reagents and samples in the eyes, skin, and mucosal tissues. In case of contact with sensitive areas, immediately flush the affected area with water. Avoid microbial contamination of the reagent, as this may produce nonspecific amplification results.

Material safety data sheet (MSDS) is available upon request.

PERFORMANCE CHARACTERISTICS:

Gennova Scientific has performed studies to evaluate the functioning of this ladder for use with standard visualization

REF	Catalog number	LOT	Batch code	RUO	Research use only
	Temperature limitation		Expiration date		
	Manufacturer		See instruction for use		



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and determination systems, concluding that the product is both specific and sensitive for determination performance.

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