



Product Specifications

ACRIDINE ORANGE

<u>Catalog #</u>	<u>Size</u>
IB74020	25gm

Physical Specifications

CAS#	10127-02-3
Formula Weight	370.0
Molecular Formula	$C_{17}H_{20}ClN_3 * \frac{1}{2}ZnCl_2$
Em (490nm, water)	Min 36,500

Recommended Use

Acridine Orange is a metachromatic stain that can be used to detect both single- and double-stranded nucleic acids. Acridine orange interacts differently with polynucleotides, either by intercalation between the stacked bases of dsDNA or RNA, or when the polynucleotide is predominantly single-stranded by binding electrostatically to the phosphate backbone to produce a stacked array. If the stain intercalates between the stacked bases of the double stranded nucleic acid it will fluoresce green at 530nm. If Acridine Orange binds to the single stranded nucleic acid, it will fluoresce orange-red at 640nm. Therefore, acridine orange is a very informative reagent when determining the structure of the nucleic acids that have undergone electrophoresis. Acridine orange is also more sensitive than ethidium bromide if the electrophoresis system has been denatured by glyoxylation.

For a 1.5% agarose gel, stain with 30µg/mL Acridine Orange in 10mM sodium phosphate (pH 7.0) for 15 minutes at room temperature in the dark. To destain, run hot tap water over the gel for 15-20 minutes.

Storage

Store at room temperature. Keep tightly sealed. Protect from moisture. Light Sensitive.

Warning

Irritant. Suspected mutagen. Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Wash thoroughly with water after handling. See Material Safety Data Sheet for additional information.