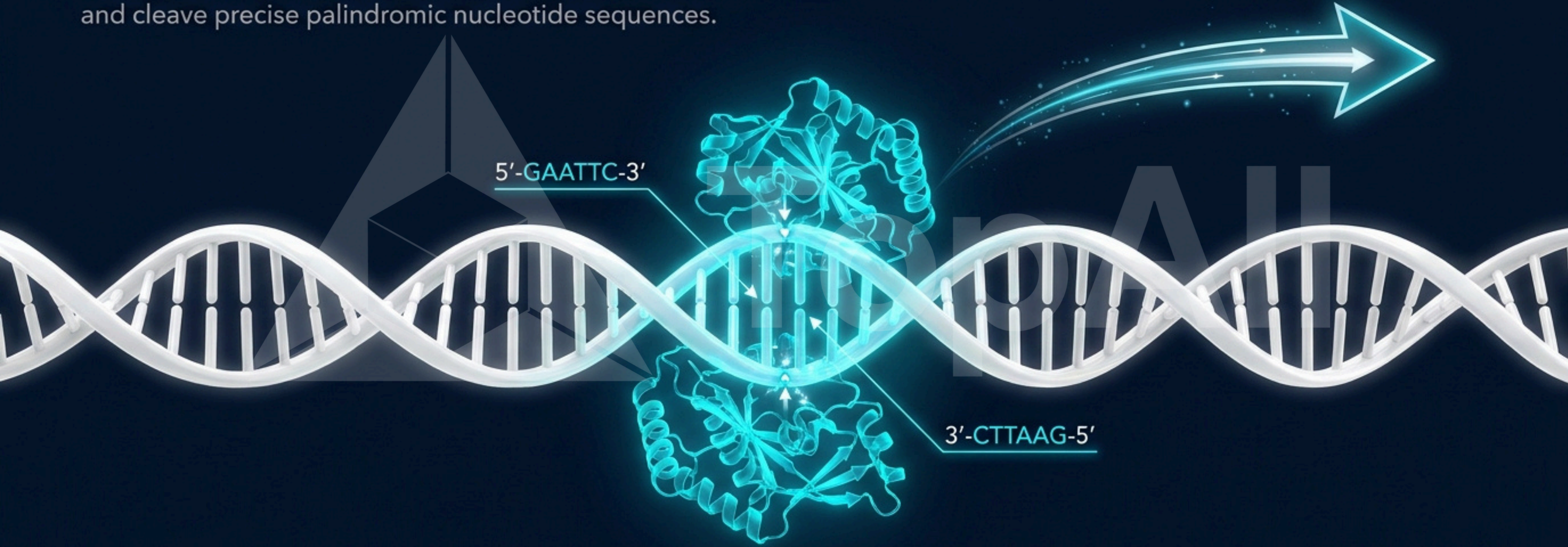
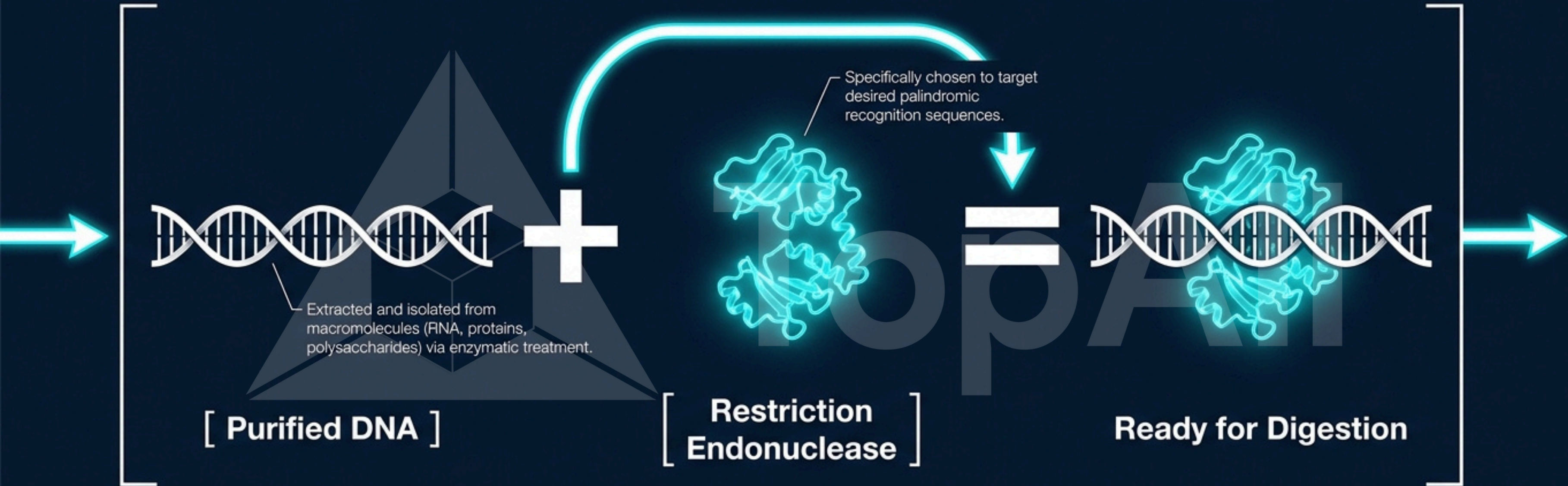


# Cutting DNA at the Right Site

The foundation of recombinant DNA technology relies on “molecular scissors”—restriction endonucleases that recognize and cleave precise palindromic nucleotide sequences.



# Step 1: The Molecular Equation for Digestion





**You've Learned the Theory.  
Let's Test Them Now.**

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

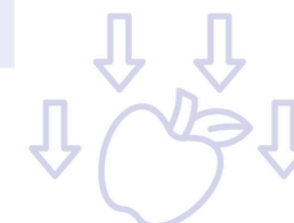
**Practice Now**



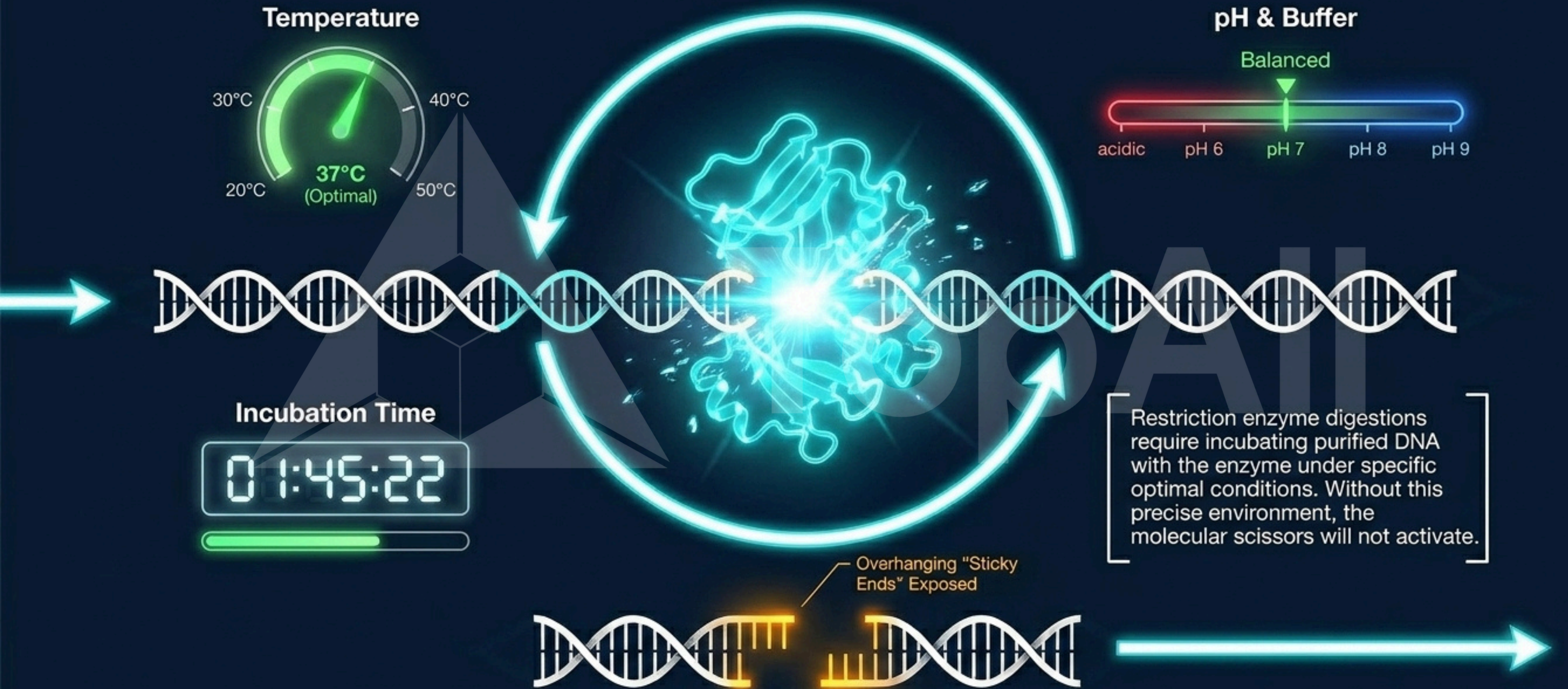
At [prep.topall.app](https://prep.topall.app)

### Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



## Step 2: Activating the Molecular Scissors



# Step 3: Verifying the Cut via Gel Electrophoresis

## The Physics

Negative Charge  
(Cathode)



Positive Electrode  
(Anode)

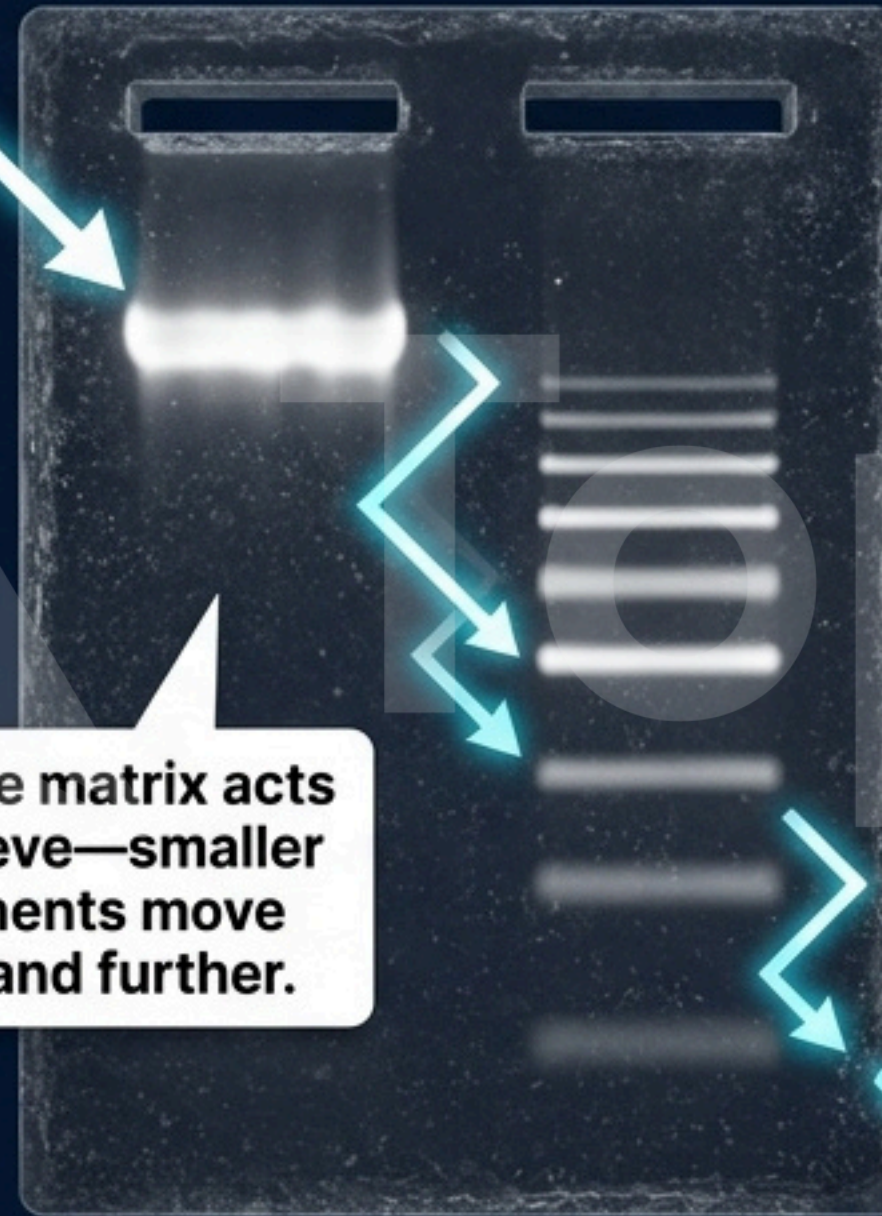
## The Gel Matrix

Undigested DNA

1

Digested DNA

2

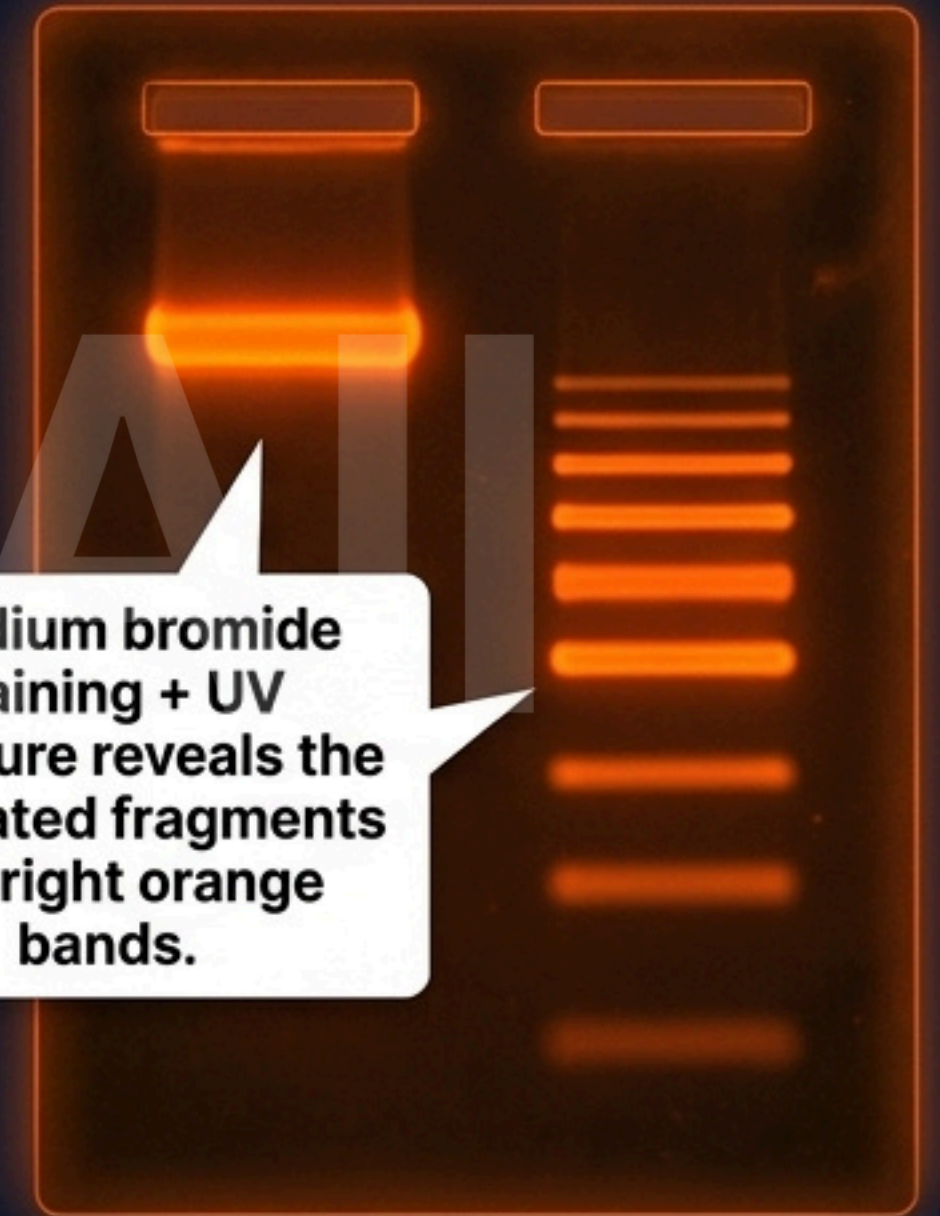


Agarose matrix acts  
as a sieve—smaller  
fragments move  
faster and further.

## The Visualization

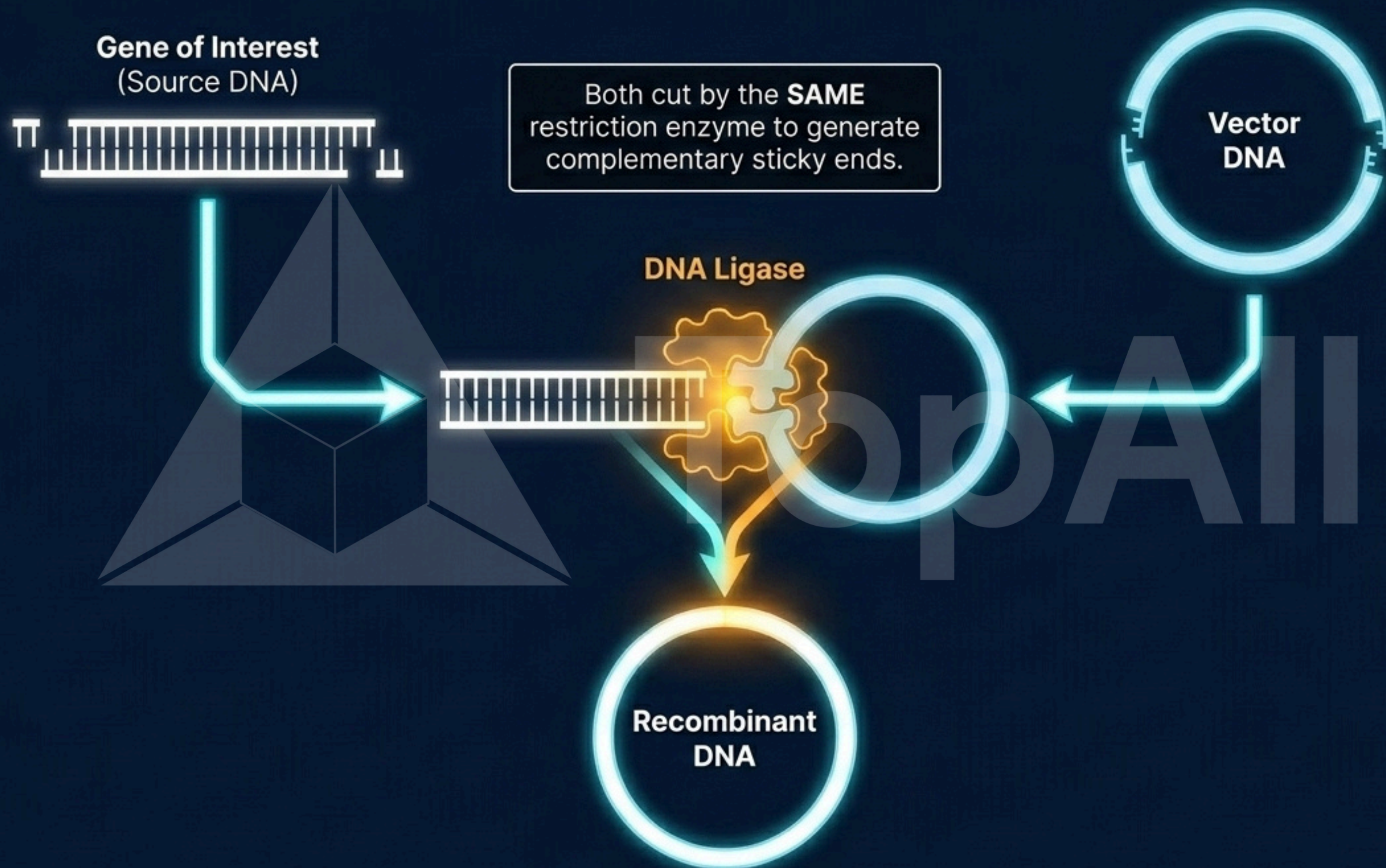
1

2



Ethidium bromide  
staining + UV  
exposure reveals the  
separated fragments  
as bright orange  
bands.

## Step 4: Ligating the Final Recombinant Molecule





# You've Learned the Theory.

## Now Let's Test It.

Reading notes gets you knowledge.

**Practicing MCQs gets you marks.**

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**Practice the moment you finish studying**  
Jump in while the concept is still fresh in your head

**4.5L+**  
MCQs

**1.5L+**  
Students

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