THE MAKING OF DNA

TOUCHLIGHT

# Enzymatic DNA for AAV production

## Are plasmid DNA issues impacting your AAV program delivery?

The manufacture of plasmid DNA for AAV production can create significant challenges, including scalability, fidelity, mis-incorporation of bacterial sequences such as antibiotic resistance genes, high costs and long lead times for GMP production.

Replacing plasmid DNA with enzymatically produced DNA in your AAV production eliminates many issues around complex or unstable sequences,  purity, speed to manufacture, safety and scalability.

Many biotech and pharma companies focused on advanced therapies are taking advantage of enzymatic DNA to deliver rapid AAV production using less DNA.

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**OFF THE SHELF AAV PRODUCTS FOR INITIAL EVALUATION:**

**CMV-Lux-2A-eGFP Transgene**
(Luciferase and eGFP combined reporter transgene)

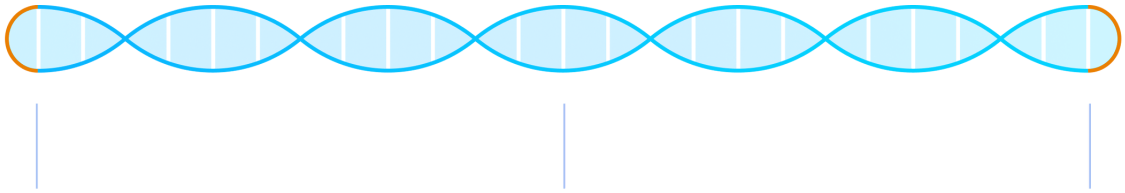
**Rep2Cap2**
(AAV2 capsid)

**AdHelper**
(AAV helper)

Supporting your AAV production

# Introducing dbDNA™

Touchlight's dbDNA is a linear, double stranded, covalently closed DNA vector which is produced through an enzymatic manufacturing process. The cell-free process avoids selective pressure often associated with plasmid instability which produces truncations and malformations of DNA.



**TEL (28bp)**
Fully complementary

DNA SEQUENCE OF INTEREST

**TEL (28bp)**
Fully complementary

## How can dbDNA help you?

- **Manufactured faster than plasmid** – dbDNA limits generational instability by utilising a cell-free enzymatic production process. Enzymatic manufacturing enables scalable GMP DNA production in weeks rather than the months taken to source, make and release plasmid DNA.
- **Amplifies unstable sequences** (e.g., ITRs) with high fidelity.
- **Eliminates packaging of bacterial sequences** - excludes bacterial sequences, including antibiotic resistance genes, avoiding regulatory challenges.
- **Reduces *E. coli*-related impurities** - endotoxin, host cell protein and nucleic acid
- **Scalable** – Manufactured using benchtop equipment with a significantly smaller footprint than-fermentation based production.

## Access dbDNA in different ways.

- **Off-the-shelf catalogue products** for initial evaluation.
- **Test your custom sequence** with the supply of milligrams of dbDNA. This can be a quick and easy way to access dbDNA and test in your platform.
- **Toxicology and cGMP material supply**. Flexible supply and development to meet your scale and timeline.

## Can we help to address your DNA challenges?

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