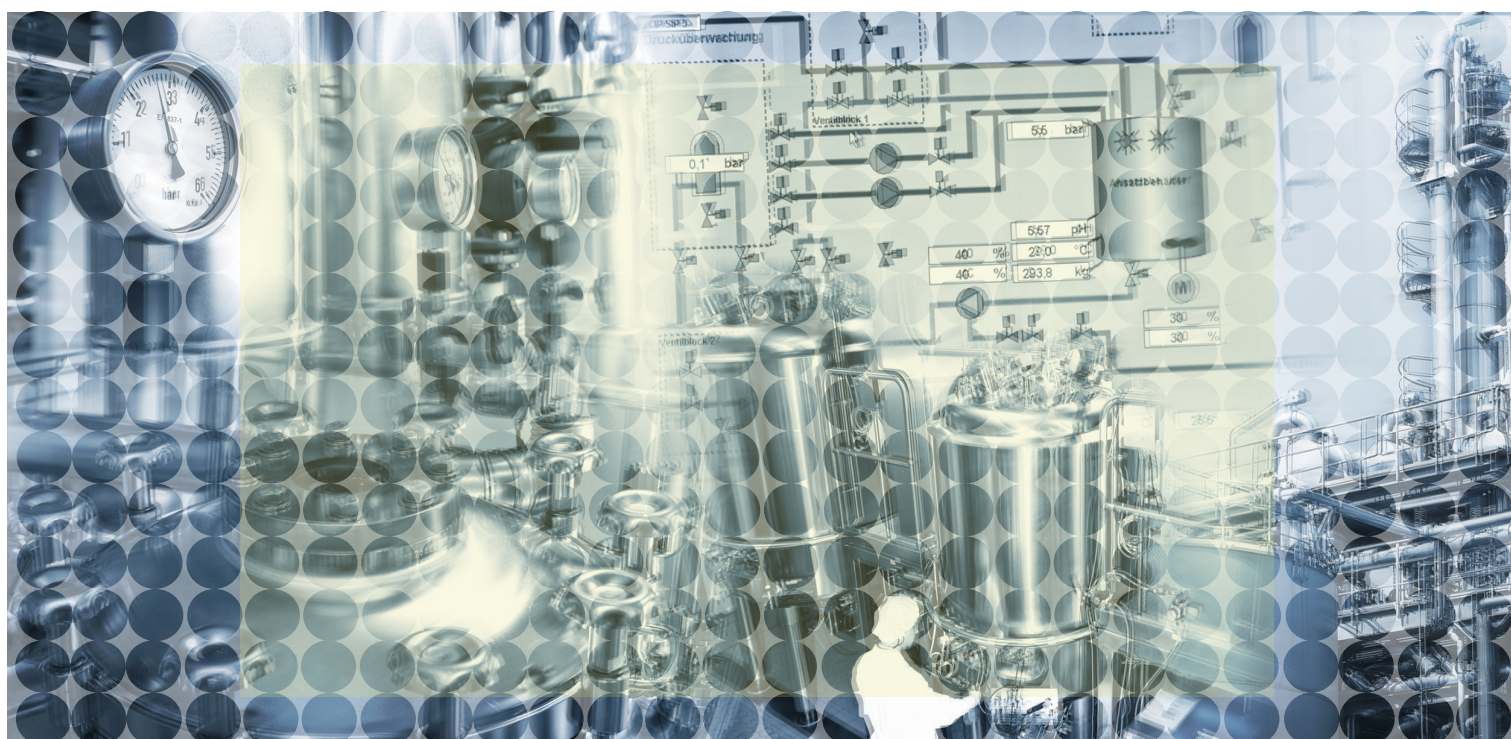




**OZBIOSCIENCES**  
The art of delivery systems



# Large-Scale Protein Production

## HYPE™ Transfection Kits

BIO-PRODUCTION  
HEK-293/CHO

# REACH OPTIMAL PROTEIN AND

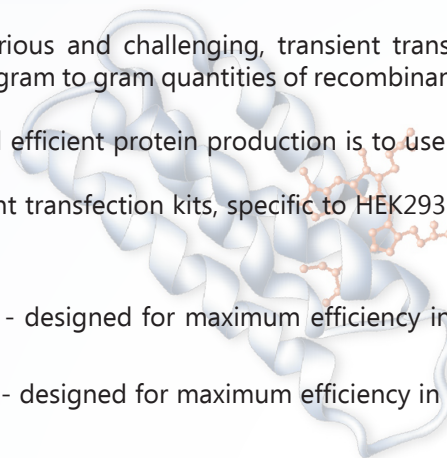
## HYPE™ Transfection Kits: The go-to Bioproduction Solution

As the development of stably-expressing cell lines can be laborious and challenging, transient transfection in mammalian cells has become the go-to method for obtaining milligram to gram quantities of recombinant proteins in a matter of days.

A key to a successful TGE (Transient Gene Expression) system and efficient protein production is to use a specific and appropriate transfection reagent.

At OZ Biosciences, we have developed two alternative and efficient transfection kits, specific to HEK293 and CHO cells, the two widely used hosts for TGE.

- **HYPE-293™ Transfection Kit** - High Yield Protein Expression - designed for maximum efficiency in HEK-293 cells growing in suspension
- **HYPE-CHO™ Transfection Kit** - High Yield Protein Expression - designed for maximum efficiency in all CHO-S cells



## HYPE-293

HYPE-293™ Transfection Kit is dedicated to achieve High Yield Protein Expression in HEK-293, 293-S, 293-F or any 293-related cells growing in suspension. Scale-up to larger volumes for production of protein per liter of cell culture is straightforward and easy with simple and cost efficient handling steps.

### High Protein & Antibody Yield

HYPE-293™ Transfection Kit achieves the highest protein yield in comparison to other commercially available transfection reagents.

#### High Production Yield for Antibody

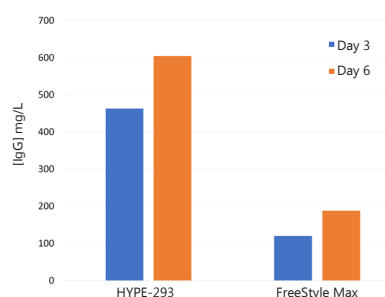


Fig1: IgG Rabbit production after transient transfection of HEK-293 cells with HYPE-293™ kit in 30 mL cell culture volume.

#### Outperforms Competitors

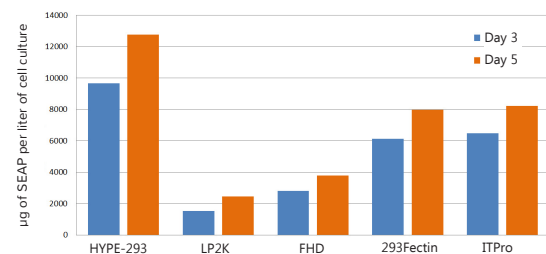


Fig2: SEAP Expression with HYPE-293™ Kit vs. competitors.

### Easy & Efficient Scale-up

Protein production in 293-F suspension cells can be easily scaled up by using HYPE-293™ Transfection Kit without any protocol modification and protein yield production is even higher when compared to lower cell culture volume.

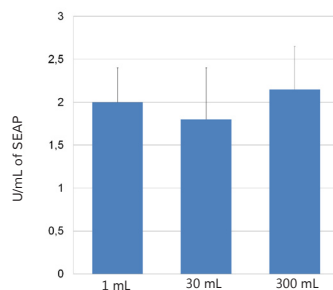
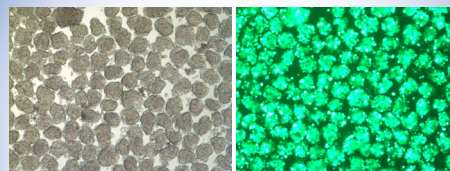


Fig3: SEAP Expression with HYPE-293™ Kit in increasing volume of culture. Transfections were performed using 0.75 of plasmid DNA per mL of cell culture. Ratio of 2 µL of HYPE-293 reagent per µg of plasmid was used. Density of cell culture was  $1 \times 10^6$  cells/mL the day of transfection.



HYPE-293™ kit achieves high transfection efficiency. GFP was produced by transient transfection using HYPE-293™ Kit. Transfections were performed using 0.75 of plasmid DNA (pVectOZ-GFP) per mL of cell culture. 2 µL of HYPE-293 reagent per µg of plasmid was used.

HYPE-293

# ANTIBODY PRODUCTION YIELD

HYPE-CHO™ Transfection Kit has been designed for large scale up transient transfection and high protein expression such as antibody. The system is optimized for maximum efficiency in all CHO-S cells. It has been validated with cells used to produce proteins from different origins (CHO, CHO-S, rCHO or any CHO-related cells) cultured in suspension (flask, spinner and bioreactor).

## HYPE-CHO

HYPE-CHO

## High Protein & Antibody Yield

### High production Yield for Antibody

HYPE-CHO™ Transfection Kit achieves high antibody production level and largely outperforms other commercially available transfection reagents.

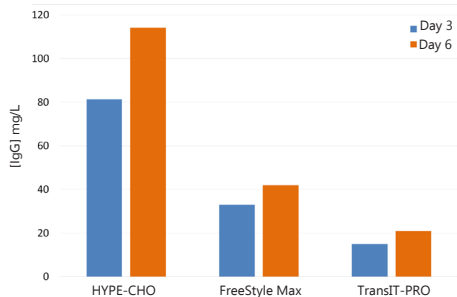


Fig5: IgG Rabbit production after transient transfection of CHO-S cells with HYPE-CHO™ kit in 30 mL cell culture volume.

### Reproducible Protein Production Yield

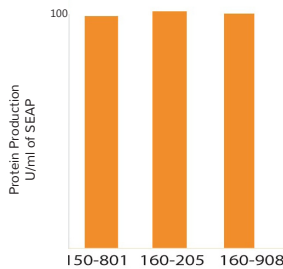
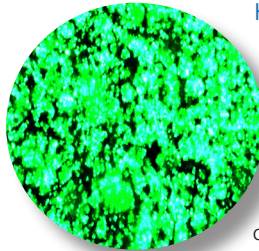


Fig6: HYPE-CHO™ allows reproducible production yield without lot-to-lot variations.



HYPE-CHO™ Kit is highly efficient for intracellular protein production on cells adapted in suspension with chemically defined medium and in absence of serum.

High efficiency transfection of CHO-S cells using HYPE-CHO™ transfection kit.

GFP was produced by transient transfection using HYPE-CHO™ Kit.

## Easy & Efficient Scale-up

Protein production in CHO-S suspension cells can be easily scaled up by using HYPE-CHO™ Transfection Kit without any protocol modification and protein yield production is even higher when compared to lower cell culture volume.

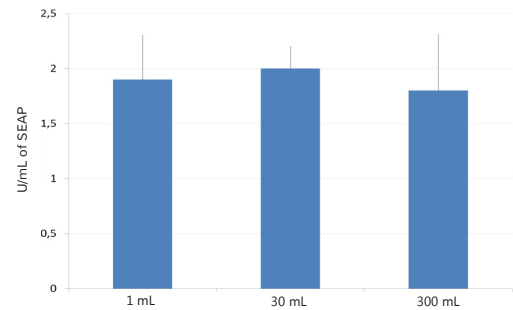


Fig7: SEAP Expression with HYPE-CHO™ Kit in increasing volume of culture.

## OVERCOMING BIOPRODUCTION CHALLENGES

HYPE™ Transfection Kits allow high-level production of secreted or intracellular recombinant proteins for therapeutic or structural studies while overcoming the traditional challenges in bioproduction.

These solutions are **free of animal-origin components**, an important quality for biotherapeutic applications.

- **Reach** optimal Protein & Antibody production yield in suspension CHO & 293 cells
- **Obtain** reproducible protein expression at various scales with minimal optimization
- **Enjoy** compatibility with multiple media formulations
- **Meet** the quality requirements

## Broad-spectrum Media Compatibility



**HYPE-293™ & HYPE-CHO™ Transfection Kits** are compatible with multiple synthetic or regular culture media. They have been tested with various chemically defined media.

| Medium         | HYPE-CHO™ |
|----------------|-----------|
| FreeStyle™ CHO | ✓         |
| ExpiCHO™       | ✓         |
| EX-CELL® CHO   | ✓         |
| ProCHO™ -CD    | ✓         |

| Medium         | HYPE-293™ |
|----------------|-----------|
| FreeStyle™ 293 | ✓         |
| Expi293™       | ✓         |
| EX-CELL® 293   | ✓         |
| Pro293™ -CD    | ✓         |

### ADDITIONAL PRODUCT

#### HYPE-5™ Transfection Kit

Dedicated to achieve **High Yield Protein Expression** in mammalian cells.

This Kit has been designed for maximum recombinant protein expression in both HEK293 and CHO cells growing in suspension.

Visit us and discover our technical tools

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