

syngensys

Aligning our

capabilities with

your needs

CHO.SET™ Synthetic Promoters

Solving Gene & Protein Expression Challenges in CHO Cells

Zoo of protein formats Many drivers for rapid increase in number of different formats being produced using mammalian cells

Paradigm shift Growing body of evidence that a one-size-fits-all expression system isn't suitable for the expanding zoo of protein formats

Stakeholder mindset

Expectation that complex, difficult-toexpress not-found-in-nature formats can be produced with the timelines and productivities found for vanilla mAbs



We will design a genetic solution to maximise production of

Distinctive thinking

Success needs the engineering of expression systems to both the host cell line and the target protein's characteristics

Unparalleled knowledge

Deep understanding coming from extensive 'omics' studies of recombinant protein production in industrial CHO cell lines

Increased confidence

Collaboration with SynGenSys removes the need to hunt for optimal protein expression, streamlining project timelines and enhancing the likelihood of on-time project delivery

Be more confident in your development timelines

Protein



Tested in transient and stable pool systems using industrially relevant CHO hosts and proteins

esponse element, a short DNA sequence in promoter or enhancer that binds transcription activator proteins to stimulate transcription

Two patent applications filed

varying strengths for production of both

single and multi-peptide protein formats

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CHO.SET[™] Synthetic Promoters

Novel promoters for enhanced gene & protein expression in **CHO cells**

Similar vector

creation

timelines to

those you are

used to

Large library with broad range of activities

Promoters stronger and weaker than hCMV and similar strength available

Superior performance to hCMV demonstrated for both individual promoters and combinations in 7-day batch pools producing trastuzumab

Combining synthetic SV40 variants to drive GS expression in conjunction with trastuzumab Ð expression driven by CHO.SET™ synthetic promoters resulted in further productivity improvements

Magnitude of improvement differs between host cell lines for the same product

Fed-batch data available June '24



Ready-to-go promoter combinations and materials for use with wellbehaved proteins

De-risk your timelines for poorly behaved proteins by in-parallel testing of a larger & wider combination of synthetic promoters



Promoter

CHO.SET synthetic promoter library

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SV40

var E

var C

Fold Cha

ssion

2.0

1.0

32

28

24

16

12

hCMV/ A/A hCMV

B/B

Fold change 20

Assumes overhangs on genes-of-interest compatible with SynGenSys's Golden Gate cloning protoco.



How to contact us:

- licensing@syngensys.com
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