Twist Vectors

CLONAL GENES SPECIFICATIONS

Product
Synthetic DNA cloned into a Twist Cloning or Expression Vector

Insert Size
0.3 – 3.2 kb

Quality Control
100% NGS-verified gene sequences

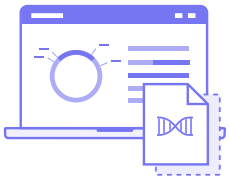
Turnaround Time
15–20 business days

KEY BENEFITS

- **Fast Turnaround**
  Save time by using catalog vectors quickly and conveniently
- **Diverse Selection**
  Select the right vector for specific cloning and protein expression needs
- **Simple Online Ordering**
  Easy-to-use online ordering portal allows vector selection for clonal genes

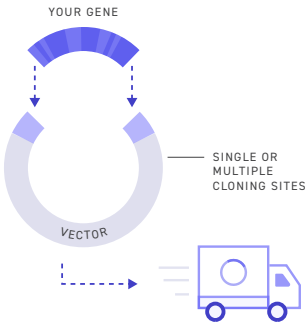
Twist Bioscience synthesizes high-quality, NGS-verified custom genes at a cost and scale that are otherwise unavailable. For researchers wanting to replicate their synthetic genes or use them in expression studies, Twist provides the option of delivery in a diverse selection of cloning and expression vectors through a convenient online ordering platform.

Convenient ordering of cloned genes into a diverse selection of vectors



1
Upload gene sequences to Twist's Online Ordering Platform

2
Genes are synthesized utilizing Twist's proprietary, highly-scalable technology



3
Synthetic genes are then cloned into Twist Cloning or Expression Vectors and shipped

READY TO ORDER?
Contact sales@twistbioscience.com or order online at twistbioscience.com/shop

EXPRESSION VECTORS[+]

MAMMALIAN EXPRESSION

pTwist
CMV

Human cytomegalovirus (CMV) promoter-driven. Ampicillin resistance cassette for growth and maintenance in E. coli. High levels of transient expression in mammalian cells. Transcriptional termination via a SV40 poly-adenylation signal 3' of the multiple cloning site.

SPECIFIC VECTORS

CMV

CMV BetaGlobin
Enhances gene expression

CMV OriP
Drives higher levels of protein expression in EBNA transformed HEK-293 cells

CMV Hygro
Contains a hygromycin mammalian selection marker

CMV Puro
Contains a puromycin mammalian selection marker

CMV BetaGlobin WPRE Neo
WPRE enhances gene expression and resistance to G418

pTwist
EF1 Alpha

Medium-level transient mammalian expression driven by the Human Elongation Factor Alpha Promoter (EF1 Alpha) promoter. Ampicillin resistance cassette for growth and maintenance in E. coli. Transcriptional termination via a SV40 poly-adenylation signal 3' of multiple cloning site.

SPECIFIC VECTORS

Alpha

Alpha Puro
Contains a puromycin mammalian selection marker

BACTERIAL EXPRESSION

pET

T7 RNA polymerase-driven transcription. Lacking ribosome binding sites and ATG start codons, they are designed for protein expression from translation signals carried by the cloned DNA. Lac repressor / lac operator to inhibit transcription in E. coli. Expression induced by adding lactose or isopropyl-β-D-thiogalactopyranoside (IPTG). Production of virions containing single-stranded DNA correspond to the coding strand upon co-transfection with helper phage.

SPECIFIC VECTORS

pET-21(+)
- C-terminal His•Tag® sequence
- Ampicillin resistance

pET-24(+)
- C-terminal His•Tag® sequence
- Kanamycin resistance

pET-28a(+)
- N-terminal and optional C-terminal His•Tag® sequence
- Internal T7•Tag® sequence
- Thrombin cleavage site

pET-29b(+)
- N-terminal S•TagTM sequence
- C-terminal His•Tag® sequence
- Thrombin cleavage site

CLONING VECTORS

pTwist
High Copy Vectors

pMB1 origin of replication. Twist forward and reverse primers flank the insertion site for easy amplification. M13 forward and reverse priming sites for gene sequencing.

SPECIFIC VECTORS

Amp High Copy
Ampicillin resistance marker

Kan High Copy
Kanamycin resistance marker

Chlor High Copy
Chloramphenicol resistance marker

pTwist
Medium Copy Vectors

p15A origins of replication. Twist forward and reverse primers flank the insertion site for easy amplification. M13 forward and reverse priming sites for gene sequencing.

SPECIFIC VECTORS

Amp Medium Copy
Ampicillin resistance marker

Kan Medium Copy
Kanamycin resistance marker

Chlor Medium Copy
Chloramphenicol resistance marker

pTwist
ENTR

For rapid cloning of one or more genes into virtually any protein expression system utilizing the Gateway® Cloning Technology. Once you have an entry clone, you can recombine your gene of interest into a variety of expression vectors adapted for use with Gateway® Technology.

The gene is cloned between the attL1 & attL2 recombination sites. Contains a pMB1 origin of replication for high plasmid yields and M13 forward and reverse priming sites for gene sequencing.

SPECIFIC VECTORS

ENTR

ENTR Kozak
- Recommended for enhanced mammalian expression levels
- Cloning site is designed in the appropriate reading frame to work with both N and C terminal fusion tags in the most popular Gateway® mammalian expression vectors

OXFORD GENETICS
BIOLOGY ENGINEERED

[+]Expression vectors were created in partnership with Oxford Genetics using SnapFast® technology. SnapFast® is a registered trademark of Oxford Genetics Ltd.
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