

pTriEx-1.1 Hygro Vector

Baculovirus Locus	polh
Promoters	Vertebrate hybrid p10 T7lac
C-terminal fusion options	HSV•Tag His•Tag
Cloning options	polylinker
Selectable marker (mammalian cells)	Hygromycin ^R

The pTriEx™-1.1 Hygro vector¹ (Cat. No. 70928-3) is designed to allow rapid characterization of target genes in multiple expression systems, and to allow rapid selection of stable transfected mammalian cells expressing high levels of target protein. With this vector a single recombinant plasmid can be used to test expression in *E. coli*, insect and vertebrate cells. Expression in vertebrate cells is mediated by a hybrid promoter composed of the CMV immediate early enhancer fused to the chicken β-actin promoter. The drug selection marker is expressed under the control of the EMC virus Cap-Independent Translation Enhancer (CITE) sequence (or IRES), allowing rapid selection of transfected mammalian cells using hygromycin. For expression in insect cells, pTriEx-1.1 Hygro contains flanking baculovirus sequences to permit the generation of recombinant baculoviruses using the BacVector® System. In baculovirus-infected insect cells, expression is driven by the very late p10 promoter. Expression in *E. coli* is regulated by the tightly controlled T7lac promoter. Expression can be induced in hosts such as NovaBlue by infecting with λCE6, a phage that constitutively expresses T7 RNA polymerase from the λ_{p_L} and λ_{p_R} promoters. Alternatively, pTriEx recombinant plasmids can be transferred into a (DE3)pLacI host that allows induction with IPTG.

pTriEx-1.1 Hygro sequence landmarks

CMV ie enhancer region	1079–1443
Chicken actin promoter region	1449–1726
Vertebrate transcription start	1727
T7 promoter	2150–2166
T7 transcription start	2167
lac operator	2171–2191
p10 promoter region	2205–2318
p10 transcription start	2249–2250
Multiple cloning sites (Nco I–Bsu36 I)	2331–2519
HSV•Tag [®] coding sequence	2441–2476
His•Tag [®] coding sequence	2483–2506
CITE sequence	2561–3023
hygro	3047–4078
Rabbit globin terminator region	4079–4453
T7 terminator	4454–4501
pUC origin	5430
bla coding sequence	6029–6889



