pcDNA 3.1 (-) MycHisC
Expression Vector

Product Number E0648
Store at -20°C

Product Summary:
Package Size: 20 µg
Lyophilized in 10 mM Tris-HCl and 1 mM EDTA pH 7.5
Plasmid Size: 5.5 kb
Antibiotic Resistance: Ampicillin and Neomycin
Resuspend the expression vector in 0.2 µm filtered water.

Description:
pcDNA3.1(-)/myc-his C is an expression vector that contains the strong CMV enhancer-promoter for high level expression of recombinant proteins.

pcDNA3.1(-)/myc-his C expression vector gene for the expression of a myc-his tag for detection of the recombinant protein.

The pcDNA3.1(-)/myc-his C expression vector contains a multiple cloning site for easy cloning.

Restriction endonuclease digestion of supercoiled pcDNA 3.1(-)/myc-his C yields the following fragments: Apa I (5500 bp), Xba I 5,500) and SnaB I (5,088, 412 bp).

pcDNA3.1(-) /myc-his C expression vector has a multiple cloning site in an opposite orientation from the pcDNA3.1(+). The vector is supplied in one of three reading frames to facilitate in frame cloning with a C-terminal tag containing a polyhistidine metal-binding region and the myc (c-myc) epitope. The human cytomegalovirus immediate-early (CMV) promoter provides high-level expression in many mammalian cells. Also, the vector will replicate in cell lines which are infected with SV40.

T7 Multiple Cloning Site
Nhe I
Pme I
Apa I
Xba I
Xho I
Not I
BstX I
EcoR V
EcoR I
BstXI
BamH I
Asp718 I
Kpn I
Hind III
Apa I
Xba I
Myc epitope
His\textsubscript{6}
Term
Pme I

Additional Information:
To ensure proper expression of your recombinant protein, you must clone your gene in frame with the C-terminal peptide. The vector can be used with two additional vectors to facilitate cloning of the gene in frame.

The expression vectors are:
E0398 pc DNA3.1(-) MycHis A
and E0523 pcDNA3.1(-) MycHisB
<table>
<thead>
<tr>
<th>Features of pcDNA3.1 (-)/Myc-His C</th>
<th>Benefits of pcDNA3.1(-)/Myc-His C</th>
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<tbody>
<tr>
<td>Human cytomegalovirus (CMV) immediate-early promoter/enhancer.</td>
<td>Permits efficient, high-level expression of recombinant protein.</td>
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<tr>
<td>T7 promoter/priming site</td>
<td>Allows for in vitro transcription in the sense orientation and sequencing through the insert.</td>
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<tr>
<td>Multiple cloning site</td>
<td>Allows insertion of your gene and facilitates cloning in frame with the polyhistidine C-terminal tag.</td>
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<td>Myc epitope (c-myc)</td>
<td>Allows detection of the recombinant protein.</td>
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<td>C-terminal polyhistidine tag</td>
<td>Permits purification of the recombinant protein on metal chelating resins.</td>
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<td>pcDNA3.1/BGH reverse priming site</td>
<td>Permits sequencing through the insert.</td>
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<td>Bovine growth hormone (BGH) polyadenylation signal</td>
<td>Efficient transcription termination and polyadenylation of mRNA.</td>
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<tr>
<td>F1 origin</td>
<td>Allows rescue of single-DNA.</td>
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<tr>
<td>Neomycin (G418) resistance gene</td>
<td>Selection of stable transfectants in mammalian cells</td>
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<tr>
<td>SV40 polyadenylation signal</td>
<td>Efficient transcription termination and polyadenylation of mRNA</td>
</tr>
<tr>
<td>ColE1 origin (pUC-derived)</td>
<td>High copy number replication and growth in E. coli</td>
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<tr>
<td>Ampicillin resistance gene (β-lactamase)</td>
<td>Selection of vector in E. coli</td>
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<tr>
<td>SV40 early promoter and origin</td>
<td>Allows efficient, high-level expression of neomycin resistance gene and episomal replication in cells expressing SV40 large T antigen.</td>
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