## **Certificate of Analysis**

## pFC7A (HQ) Flexi® Vector:

 Part No.
 Size

 C853A
 20μg

Description: The pFC7A (HQ) Flexi® Vector(a.b) is designed for use with the Carboxy Flexi® System, Transfer (Cat.# C9320). The vector contains a T7 promoter for bacterial or in vitro expression of a protein coding region. The vector is configured to append a C-terminal VSHQHQHQ coding region, which can be used to purify the expressed protein using the MagneHis™, MagZ™, HisLink™ 96 or HisLink™ Protein Purification Systems (Cat.# V8500 and V8550; V8830; V3680 and V3681; and V8821, respectively). The vector contains the lethal barnase gene for positive selection of the insert, an ampicillin-resistance gene for selection of the plasmid and unique Sgfl and EcolCR I sites, which allow easy insertion of the sequence of interest. Inserts containing a protein-coding region can be easily transferred to the pFC7A (HQ) Flexi® Vector from other Flexi® Vectors with different expression options. Once inserted in this vector, the sequence is no longer available for transfer because of the absence of a Pme I site at the 3′ end of the open reading frame. For more information, see the *Flexi® Vector Systems Technical Manual* #TM254.

## **Usage Information**

Concentration: 100ng/µl.

GenBank® Accession Number: DQ133906.

Storage Buffer: The pFC7A (HQ) Flexi® Vector is supplied in 10mM Tris-HCI (pH 8.0), 1mM EDTA.

 $\textbf{Storage Conditions:} Store \ the \ vector \ at \ -20 ^{\circ}\text{C}. \ A \ void \ multiple \ freeze-thaw \ cycles \ and \ exposure \ to \ frequent \ temperature$ 

changes. These fluctuations can greatly alter product stability. See label for expiration date.

Usage Notes: Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to

use.

## **Quality Control Assays**

**Nuclease Assay:** Following incubation of 1µg of pFC7A (HQ) Flexi® Vector in Restriction Enzyme Buffer B at 37°C for 16 hours, no evidence of nuclease activity is detected by agarose gel electrophoresis.

**Physical Purity:** A<sub>260</sub>/A<sub>280</sub> > 1.80.

**Restriction Digestion:** The presence of unique restriction sites for EcoICR I and SgfI is confirmed by showing that the vector is linearized and yields the expected fragment sizes after digesting 1µg of vector for 2 hours with 10 units of EcoICR I, SgfI and BgI II.

(a)Patent Pending

(e)For research use only. Persons wishing to use this product or its derivatives in other fields of use, including without limitation commercial sale, diagnostics or therapeutics, should contact Promega Corporation for licensing information.

Signed by:

J. Stevens, Quality Assurance

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Promega Corporation				
2800 Woods Hollow Road				
Madison, WI 53711-5399	USA			
Telephone	608-274-4330			
Toll Free	800-356-9526			
Fax	608-277-2516			
Internet	www.promega.com			

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All specifications are subject to change without prior notice.

Product claims are subject to change. Please contact Promega Technical Services or access the Promega online catalog for the most up-to-date information on Promega products

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# **Usage Information**

## pFC7A (HQ) Flexi® Vector Features and Circle Map

The following features are present in the vector based on nucleotide sequence. T7 RNA polymerase promoter (-17 to +2) Sgfl site 61-68 barnase coding region 70-405 EcoICR I site 425-430 HQHQHQ coding region (HQ tag) 430-447 T7 terminator 543-590 β-lactamase (Amp<sup>r</sup>) coding region 924-1784 Co/E1-derived plasmid origin of replication 1939-1975 cer site (site for E. coli XerCD recombinase) 2646-2931 rrnB transcription terminator 2982-3383

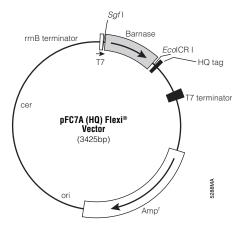


Figure 1. pFC7A (HQ) Flexi® Vector circle map and sequence reference points.

**Note:** Maps of all the Flexi® Vectors are available at: **www.promega.com/vectors/cloning\_vectors.htm** 

### **Related Products**

Product		Size	Cat.#
Flexi® System, Entry/Transfer	5 entry and 20 transfer reactions		C8640
Flexi® System, Transfer	100 transfer reactions		C8820
Carboxy Flexi® System, Transfer	50 transfe	r reactions	C9320
10X Flexi® Enzyme Blend (Sgfl & Pme	1)	25µI	R1851
		100µl	R1852
Carboxy Flexi Enzyme Blend (Sgfl & E	colCRI)	50µl	R1901
HaloTag® Flexi® Vectors-CMV Dilution	n Series Sample Pack	9 × 2μg	G3780
Single Step (KRX) Competent Cells	•	5 x 200µl	L3001

There are Flexi® Vectors available for many different applications. Visit: **www.promega.com/applications/cloning** to find out more.