

Certificate of Analysis

pH6HTC His₆HaloTag[®] T7 Vector:

Part No.
G803A

Size
20µg

Part# 9PIG803

Revised 9/16

Description: The pH6HTC His₆HaloTag[®] T7 Vector^(a,b) is configured to append the His₆HaloTag[®] tag to the carboxy-terminus of the fused protein. The vector contains a multiple cloning region for convenient cloning and a His₆HaloTag[®] protein coding region that allows for both purification and labeling of the expressed fusion protein.

Note: The insert must contain an in-frame ATG codon for translation initiation.

The pH6HTC His₆HaloTag[®] T7 Vector contains the following features:

- A **T7 RNA polymerase promoter** for in vitro HaloTag[®] fusion protein expression in cell-free systems (e.g., TnT[®] lysate reaction) and in vivo expression in *E. coli* strains containing T7 RNA polymerase.
- A **multiple cloning region** containing unique restriction sites to facilitate gene insertion into the vector.
- The **C-terminal His₆HaloTag[®] region**, which allows simple purification via the hexahistidine tag, and rapid formation of covalent bonds with HaloTag[®] ligands and surfaces, allowing labeling and immobilization of expressed proteins.
- A **HaloTag[®] linker**, a stretch of amino acids that allows efficient flexibility of the HaloTag[®] tag when fused to the protein of interest.
- A **TEV protease site** for cleavage of the expressed protein from His₆HaloTag[®] coding region using using HaloTEV Protease (Cat.# G6601).
- An **ampicillin-resistance gene** for selection of plasmid in bacteria.

Concentration: 1µg/µl.

GenBank[®] Accession Number: JN874647.

Storage Buffer: The pH6HTC His₆HaloTag[®] T7 Vector is supplied in 10mM Tris-HCl, 1mM EDTA (pH 7.4).

Storage Conditions: See Product Information Label for storage recommendations and expiration date. Avoid multiple freeze-thaw cycles and exposure to frequent temperature changes. These fluctuations can greatly alter product stability.

Usage Note: When removing the HaloTag[®] gene to insert into other vectors, it is critical to also include the HaloTag[®] linker and the TEV protease recognition sequence to ensure best function of the HaloTag[®] coding region.



AF9PIG803 0916G803



Promega

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

Quality Control Assays

Contaminant Assays

Contaminating Nucleic Acids: RNA, single-stranded DNA and chromosomal DNA are not evident in an overload sample of this vector as determined by agarose gel electrophoresis.

Nuclease Assay: To demonstrate the absence of endonucleases and exonucleases, vector DNA is incubated in standard digest buffers at 37°C for 16 hours followed by agarose gel electrophoresis. The specification is <10% conversion to nicked or linear DNA.

Physical Purity: $A_{260}/A_{280} \geq 1.80$, $A_{260}/A_{250} \geq 1.05$.

Functional Assays

Identity Assay: The vector has been sequenced completely and has 100% identity with the published sequence available at: www.promega.com/products/vectors

Restriction Enzyme Digests: Vector DNA is analyzed for the presence of certain restriction enzyme sites by incubation with a variety of restriction enzymes at the specified digestion temperature for 1 hour. Samples are examined by agarose gel electrophoresis, comparing cut and uncut vector DNA with marker DNA.

PRODUCT USE LIMITATIONS, WARRANTY, DISCLAIMER

Promega manufactures products for a number of intended uses. Please refer to the product label for the intended use statements for specific products. Promega products contain chemicals which may be harmful if misused. Due care should be exercised with all Promega products to prevent direct human contact.

Each Promega product is shipped with documentation stating specifications and other technical information. Promega products are warranted to meet or exceed the stated specifications. Promega's sole obligation and the customer's sole remedy is limited to replacement of products free of charge in the event products fail to perform as warranted. Promega makes no other warranty of any kind whatsoever, and SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES OF ANY KIND OR NATURE WHATSOEVER, DIRECTLY OR INDIRECTLY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, AS TO THE SUITABILITY, PRODUCTIVITY, DURABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, MERCHANTABILITY, CONDITION, OR ANY OTHER MATTER WITH RESPECT TO PROMEGA PRODUCTS. In no event shall Promega be liable for claims for any other damages, whether direct, incidental, foreseeable, consequential, or special (including but not limited to loss of use, revenue or profit), whether based upon warranty, contract, tort (including negligence) or strict liability arising in connection with the sale or the failure of Promega products to perform in accordance with the stated specifications.

© 2011, 2014, 2015, 2016 Promega Corporation. All Rights Reserved.

HaloTag and TnT are registered trademarks of Promega Corporation. HaloCHIP is a trademark of Promega Corporation.

GenBank is a registered trademark of US Dept of Health and Human Services.

Products may be covered by pending or issued patents or may have certain limitations. Please visit our Web site for more information.

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.

Part# 9PIG803
Printed in USA, Revised 9/16

Signed by:

R. Wheeler, Quality Assurance

pH6HTC His₆HaloTag[®] T7 Vector Features and Circle Map

The following features are present based on nucleotide sequence.

T7 RNA polymerase promoter (-17 to +3)	21–40
Multiple cloning region	61–129
HaloTag [®] linker region	124–168
TEV protease recognition sequence	139–159
HaloTag [®] region	169–1059
His ₆ HaloTag [®]	169–1077
His ₆ region	1060–1077
T7 terminator	1102–1149
β-lactamase (Amp ^r) coding region	1483–2343
<i>Col</i> E1-derived plasmid origin of replication	2498–2534
<i>rnnB</i> transcription terminator	3541–3942

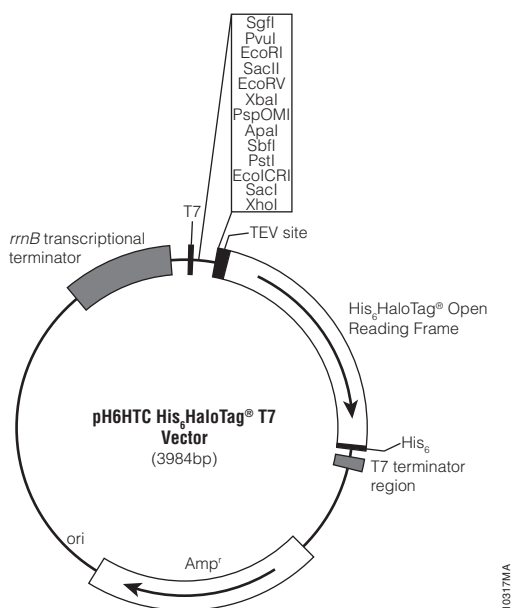


Figure 1. pH6HTC His₆HaloTag[®] T7 Vector circle map and sequence reference points.

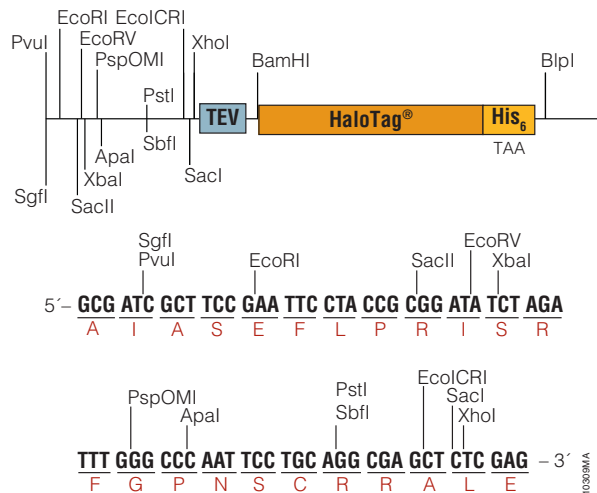


Figure 2. pH6HTC His₆HaloTag[®] T7 Vector multiple cloning region sequence and unique restriction sites. The amino acid sequence corresponds to the correct reading frame for the HaloTag[®] coding region.

Related Products

Product	Size	Cat. #
Single Step (KRX) Competent Cells	20 × 50µl	L3002
JM109 Competent Cells, >10 ⁸ cfu/µg	5 × 200µl	L2001
JM109 Competent Cells, >10 ⁷ cfu/µg	5 × 200µl	L1001
HB101 Competent Cells, >10 ⁸ cfu/µg	5 × 200µl	L2011
HaloTag [®] Mammalian Protein Detection and Purification System	1 each	G6795
HaloTag [®] Mammalian Pull-Down and Labeling System	24 reactions	G6500
HaloCHIP [™] System	20 reactions	G9410
HaloTEV Protease	200µl	G6601
	800µl	G6602

©BY USE OF THIS PRODUCT, RESEARCHER AGREES TO BE BOUND BY THE TERMS OF THIS LIMITED USE STATEMENT. If the researcher is not willing to accept the conditions of this limited use statement, and the product is unused, Promega will accept return of the unused product and provide the researcher with a full refund.

Researchers may use this product for research use only, no commercial use is allowed. Researchers shall have no right to modify or otherwise create variations of the nucleotide sequence of the HaloTag[®] gene. Researchers may however clone heterologous DNA sequences at either or both ends of said HaloTag[®] gene so as to create fused gene sequences provided that the coding sequence of the resulting HaloTag[®] gene has no more than four (4) deoxynucleotides missing at the affected terminus when compared to the intact HaloTag[®] gene sequence. In addition, researchers must do one of the following in conjunction with use of the product: (1) use Promega HaloTag[®] ligands, which can be modified or linked to Promega or customer-supplied moieties, or (2) contact Promega to obtain a license if Promega HaloTag[®] ligands are not to be used. Researchers may transfer derivatives to others for research use provided that at the time of transfer a copy of this label license is given to the recipients and recipients agree to be bound by the terms of this label license. With respect to any uses outside this label license, including any diagnostic, therapeutic or prophylactic uses, please contact Promega for supply and licensing information. PROMEGA MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH REGARDS TO THE PRODUCT. The terms of this agreement shall be governed under the laws of the State of Wisconsin, USA.

©U.S. Pat. Nos. 7,425,436, 7,935,803, 8,466,269, 8,742,086, 8,420,367 and 8,748,148 and other patents and patents pending.

Part# 9PIG803
Printed in USA Revised 9/16