



All Databases

PubMed

Nucleotide

Protein

Genome

Structure

OMIM

PMC

Journals

Search for

[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

Format: [GenBank](#) [FASTA](#) [Graphics](#) [More Formats](#) ▼

[Download](#) ▼

[Save](#) ▼

GenBank: GU045594.1

Synthetic construct Arch-GFP gene, complete cds

[Change Region Shown](#)

[Customize View](#)

[Features](#) [Sequence](#)

LOCUS GU045594 1506 bp DNA linear SYN

06-JAN-2010

DEFINITION Synthetic construct Arch-GFP gene, complete cds.

ACCESSION GU045594

VERSION GU045594.1 GI:282892262

KEYWORDS .

SOURCE synthetic construct

ORGANISM [synthetic construct](#)

other sequences; artificial sequences.

REFERENCE 1 (bases 1 to 1506)

AUTHORS Chow,B., Han,X., Dobry,A., Qian,X., Chuong,A., Li,M.,

Henninger,M.,

Monahan,P. and Boyden,E.

TITLE High-Performance Genetically-Targetable Optical Neural

Silencing

via the Class of Light-Driven Proton Pumps

JOURNAL Nature (2010) In press

REFERENCE 2 (bases 1 to 1506)

AUTHORS Chow,B., Han,X., Dobry,A., Qian,X., Chuong,A., Li,M., Henninger,M.,

Monahan,P. and Boyden,E.

TITLE Direct Submission

JOURNAL Submitted (28-SEP-2009) MIT, Media Lab, BCS, BE, E15-430, 20 Ames

St., Cambridge, MA 01242, USA

FEATURES Location/Qualifiers

source

1..1506

/organism="synthetic construct"

/mol_type="other DNA"

/db_xref="taxon:32630"

/note="derived from Halorubrum sodomense"

1..1506

/note="aR-3; archaerhodopsin-3; mammalian codon-optimized; fused to GFP"

/codon_start=1

/transl_table=11

/product="Arch-GFP"

/protein_id="ADB03111.1"

/db_xref="GI:282892263"

/translation="MDPIALQAGYDLLGDRPETLWLIGIGTLLMLIGTFYFLVRGWGV

TDKDAREYYAVTILVPGIASAAYLSMFFGIGLTVTVGGEMLDIYYARYADWLFTTPL

LLLDLALLAKVDRVTIGTLVGVDALMIVTGLIGALSHTAIARYSWWLFSTICMIVVLY

FLATSLRSAAKERGPEVASTFNLTALVVLVLTAYPILWIIIGTEGAGVVGGLGIETLLF

MVLDVTAKVGFIFILLRSRAILGDTAEPEPSAGADVSAADRPVAVSKGEEELFTGVVP

ILVELDGDVNGHKFVSVEGEGDATYGKLTLLKFICTTGKLPVPWPTLVTTLTYGVCQCF

SRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAIEVKFEGDTLVNRIELKSID

FKEDGNILGHKLEYNSHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTP

IGDGPVLLPDNHYLSTQSALSKDPNEKRDHMLLEFVTAAGITLGMDELYK"

ORIGIN

```

1 atggacccca tcgctctgca ggctggttac gacctgctgg gtgacggcag acctgaaact
61 ctgtggctgg gcacggcac tctgctgatg ctgattgga ccttctactt tctggctccg
121 ggatggggag tcaccgataa ggatgcccgg gaattattac ctgtgactat cctgggtccc
181 ggaatcgcat ccgcccata tctgtctatg ttctttgta tcgggcttac tgaggtgacc
241 gtcggggggc aaatgttga tatctattat gccaggtac cgcactggct gttaccacc
301 ccacttctgc tgctggatct ggccttctc gctaaggtgg atcgggtgac catcggcacc
361 ctgggtgggtg tggacgccct gatgatcgtc actggcctca tcggagcctt gagccacacg
421 gccatagcca gatacagttg gtggtgttct tacaattt gcatgatagt ggtgctctat

```

[Analyze This Sequence](#)

[Run BLAST](#)

[Pick Primers](#)

Recent activity

[Turn On](#) [Clear](#)

Activity recording is turned off.

[Turn recording back on](#)

[CDS](#)

```
481 tttctggcta catccctgcg atctgctgca aaggagcggg gccccgaggt ggcattacc
541 tttaacaccc tgacagctct ggtccttggt ctgtggaccg cttaccctat cctgtggatc
601 ataggcactg agggcgctgg cgtggtgggc ctgggcatcg aaactctgct gtttatggtg
661 ttggacgtga ctgccaaggc cggctttggc ttatcctgt tgagatcccg ggctattctg
721 ggcgacaccg aggcaccaga acccagtgcc ggtgccgatg tcagtgccgc cgaccgaccg
781 gtagtagcag tgagcaaggg cgaggagctg ttcaccgggg tggtgcccat cctggtcgag
841 ctggacggcg acgtaaaccg ccacaagtgc agcgtgtccg gcgagggcga gggcgatgcc
901 acctacggca agctgaccct gaagttcatc tgcaccaccg gcaagctgcc cgtgccctgg
961 cccaccctcg tgaccaccct gacctacggc gtgcagtgct tcagccgcta ccccgaccac
1021 atgaagcagc acgacttctt caagtccgcc atgcccgaag gctacgtcca ggagcgcacc
1081 atcttcttca aggacgacgg caactacaag acccgcgccg aggtgaagtt cgagggcgac
1141 accctggtga accgcatcga gctgaagggc atcgacttca aggaggacgg caacatcctg
1201 gggcacaagc tggagtacaa ctacaacagc cacaacgtct atatcatggc cgacaagcag
1261 aagaacggca tcaaggtgaa cttcaagatc cgccacaaca tcgaggacgg cagcgtgcag
1321 ctgcccgacc actaccagca gaacaccccc atcggcgacg gccccgtgct gctgcccgac
1381 aaccactacc tgagcaccga gtccgccctg agcaaagacc ccaacgagaa gcgcatcac
1441 atggtcctgc tggagtctgt gaccgcccgc gggatcactc tcggcatgga cgagctgtac
1501 aagtaa
```

//

[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)

[Department of Health & Human Services](#)

[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)