

**Enterotoxigenic *Escherichia coli*  
Expression Clone Set, Recombinant in  
*Escherichia coli*, Plate 8**

**Catalog No. NR-19797**

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**For research use only. Not for human use.**

**Contributor:**

Pathogen Functional Genomics Resource Center at the J. Craig Venter Institute

**Manufacturer:**

BEI Resources

**Product Description:**

Production in the 96-well format has increased risk of cross-contamination between adjacent wells. Individual clones should be purified (e.g. single colony isolation and purification using good microbiological practices) and sequence-verified prior to use. BEI Resources does not confirm or validate individual mutants provided by the contributor.

The Enterotoxigenic *Escherichia coli* (ETEC) expression clone set consists of approximately 900 sequence validated clones from *Escherichia coli* (*E. coli*) strains H10407, E24377A and B7A cloned in *E. coli* DH10B-T1 cells. Each open reading frame was constructed, using ligation independent cloning, in vector [pMCSG7](#) (a pET21 derivative that contains an N-terminal 6xHis tag; for routine HTP purification). The sequence was validated by full length sequencing of each clone (using 5' and 3' primers; TACTTCCAATCCAATGCG and TTATCCACTTCCAATG, respectively) with greater than 1X coverage and a mutation rate of less than 0.2%. Please refer to Table 1 for more information on the available clones.

Plate orientation and viability were confirmed for NR-19797.

**Material Provided:**

Each inoculated well of the 96-well plate contains approximately 60 µL of *E. coli* culture (strain DH10B-T1) in Luria Bertani (LB) broth containing 100 µg/mL ampicillin supplemented with 15% glycerol.

**Packaging/Storage:**

NR-19797 was packaged aseptically in a 96-well plate. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**

Media:

LB broth or agar containing 100 µg/mL ampicillin

Incubation:

Temperature: *E. coli*, strain DH10B-T1 clones should be

grown at 37°C.

Atmosphere: Aerobic

Propagation:

1. Scrape top of frozen well with a pipette tip and streak onto agar plate.
2. Incubate the plates at 37°C for 1 day.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Enterotoxigenic *Escherichia coli* Expression Clone Set, Recombinant in *Escherichia coli*, Plate 8, NR-19797."

**Biosafety Level: 2**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories](#). 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Stols, L., et al. "A New Vector for High-Throughput, Ligation-Independent Cloning Encoding a Tobacco Etch Virus Protease Cleavage Site." *Protein Expr. Purif.* 25 (2002): 8-15. PubMed: 1207169.

**Table 1: Enterotoxigenic *E. coli* Expression Clone Set, Recombinant in *Escherichia coli*, Plate 8 (EEXAB)**

Clone ID	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
D000023819	A02	H10407_SANG_CHROM4_281_1_240	hypothetical protein	293	Not Annotated	2
D000023821	A03	H10407_SANG_p948.056_0_1_816	hypothetical protein	869	Not Annotated	1.9574
D000023823	A04	h104_Ch_g54_1_243	hypothetical protein	296	Not Annotated	1.8615
D000023825	A05	H10407_SANG_CHROM0_056_1_819	hypothetical protein	872	Not Annotated	1.9163
D000023827	A06	h104_Ch_g637_1_243	hypothetical protein	296	Not Annotated	2
D000023829	A07	H10407_SANG_CHROM1_632_1_819	putative protease	872	CBJ01135	1.9278
D000023831	A08	H10407_SANG_CHROM2_010_1_243	putative phage P2 gpu family protein	296	CBJ01513	2
D000023833	A09	H10407_SANG_CHROM2_468_1_819	hypothetical protein	872	Not Annotated	1.9037
D000023835	A10	h104_Ch_g650_1_246	hypothetical protein	299	Not Annotated	2
D000023837	A11	H10407_SANG_p52.0003_1_822	hypothetical protein	875	Not Annotated	1.7657
D000023840	A12	h104_P948_g17_1_246	hypothetical protein	299	Not Annotated	2
D000023841	B01	H10407_SANG_CHROM0_232_1_825	putative transposase	878	CBI99731	1.8314
D000023843	B02	H10407_SANG_CHROM0_608_1_246	putative membrane protein	299	CBJ00114	2
D000023845	B03	H10407_SANG_CHROM0_308_1_825	putative tail fiber/collar phage protein	878	CBI99812	1.9066
D000023847	B04	H10407_SANG_CHROM1_827_1_246	putative transglycosylase associated protein	299	CBJ01331	1.9632
D000023849	B05	H10407_SANG_CHROM1_246_1_834	putative phage tail protein	887	CBJ00750	3.4848
D000023851	B06	h104_Ch_g1038_1_249	KpLE2 phage-like element; predicted frameshift suppressor	302	CBJ04129	2
D000023854	B07	H10407_SANG_CHROM2_008_1_834	phage-related tail fiber protein, pseudogene	887	Not Annotated	4.0507
D000023855	B08	h104_Ch_g146_1_249	Not Available	302	Not Annotated	1.7781
D000023857	B09	H10407_SANG_CHROM3_502_97_930	p-hydroxybenzoic acid efflux pump subunit A	890	CBJ03003	1.8955
D000023859	B10	h104_Ch_g542_1_249	putative phage DNA polymerase	302	CBJ02271	2
D000023862	B11	H10407_SANG_p948.110_0_1_837	hypothetical protein	890	Not Annotated	2.4456
D000023865	C01	H10407_SANG_CHROM3_869_139_993	UDP-D-glucose:(galactosyl) lipopolysaccharide glucosyltransferase	911	CBJ03376	1.8946
D000023868	C02	h104_Ch_g200_1_255	hypothetical protein	308	Not Annotated	2
D000023869	C03	H10407_SANG_CHROM2_580_1_861	putative peptidase	914	CBJ02084	1.3195
D000023872	C04	h104_Ch_g635_1_255	iron(III) dicitrate transport system,ATP-binding protein	308	CBJ02666	2
D000023873	C05	H10407_SANG_CHROM2_784_91_954	sigma-E factor regulatory protein	920	CBJ02288	1.9315
D000023876	C06	H10407_SANG_CHROM1_177_1_255	putative exported protein	308	CBJ00684	2
D000023877	C07	H10407_SANG_CHROM3_904_1_864	virulence associated protein	917	CBJ03411	2.6172

Clone ID	Well Position	Locus ID	Description (Gene name)	ORF Length	Accession Number	Average Depth of Coverage
D000023879	C08	H10407_SANG_CHROM3_995_1_255	ribonuclease P protein component	308	CBJ03498	1.9935
D000023881	C09	H10407_SANG_CHROM3_904_865_1731	virulence associated protein	923	CBJ03411	1.8884
D000023883	C10	h104_Ch_g96_1_258	putative RHS repeat protein	311	CBJ00101	2
D000023885	C11	H10407_SANG_CHROM4_099_1_867	phospholipase A1 (detergent resistant phospholipase A)	920	CBJ03603	1.787
D000023887	C12	H10407_SANG_CHROM0_275_1_258	conserved hypothetical protein	311	CBI99775	2
D000023889	D01	H10407_SANG_CHROM1_638_70_942	putative exported protein	929	CBJ01141	1.8213
D000023892	D02	H10407_SANG_CHROM0_869_1_258	putative exported protein	311	CBJ00378	2
D000023893	D03	H10407_SANG_CHROM2_770_1_882	hypothetical protein	935	Not Annotated	1.5561
D000023895	D04	H10407_SANG_CHROM0_873_1_258	putative exported protein	311	CBJ00382	1.9132
D000023899	D06	H10407_SANG_CHROM2_018_1_258	DNA-binding transcriptional regulator prophage remnant	311	CBJ01521	1.9453
D000023901	D07	H10407_SANG_CHROM3_430_1_882	TPR repeat lipoprotein	935	CBJ02931	1.9251
D000023903	D08	H10407_SANG_CHROM3_158_1_258	transposase	311	CBJ02659	1.9775
D000023907	D10	H10407_SANG_p666.079_0_1_258	hypothetical protein	311	Not Annotated	2
D000023913	E01	H10407_SANG_CHROM4_632_1_900	minor component of type 1 fimbriae	953	CBJ04141	1.7681
D000023915	E02	H10407_SANG_CHROM1_674_67_327	putative lipoprotein	317	CBJ01178	2
D000023917	E03	H10407_SANG_CHROM1_571_1_912	fimbrial adhesin	965	CBJ01075	2.9461
D000023921	E05	H10407_SANG_CHROM3_638_373_1284	DamX protein	968	CBJ03140	1.813
D000023923	E06	H10407_SANG_CHROM0_259_1_264	hypothetical protein	317	CBI99759	1.9937
D000023925	E07	H10407_SANG_CHROM0_862_79_996	ABC transporter, permease protein	974	CBJ00369	1.8634
D000023927	E08	H10407_SANG_CHROM1_453_1_264	conserved hypothetical protein	317	CBJ00956	2
D000023929	E09	H10407_SANG_CHROM0_825_1_927	conserved hypothetical protein	980	CBJ00335	1.8214
D000023931	E10	H10407_SANG_CHROM1_578_1_264	putative HipB DNA-binding transcriptional regulator	317	CBJ01082	2
D000023933	E11	H10407_SANG_CHROM2_771_1_927	putative phage protein	980	CBJ02275	1.702
D000023935	E12	H10407_SANG_CHROM3_299_1_264	putative IS element protein	317	CBJ02799	2
D000023937	F01	H10407_SANG_CHROM1_432_1_930	conserved hypothetical protein	983	CBJ00935	1.708
D000023939	F02	h104_Ch_g1031_1_267	isppu9, transposase	320	CBJ04127	1.9938
D000023943	F04	h104_Ch_g1062_271_537	Phage DNA packaging protein	323	CBJ04209	1.7988
D000023945	F05	H10407_SANG_p666.057_0_1_936	Not Available	989	Not Annotated	1.6545
D000023948	F06	h104_Ch_g306_1_267	putative electron transfer flavoprotein beta subunit	320	CBJ01234	1.9094
D000023950	F07	H10407_SANG_CHROM2_301_1_939	conserved hypothetical protein	992	CBJ01804	1.7964
D000023952	F08	h104_Ch_g420_1_267	putative flippase (Putative export protein)	320	CBJ01692	1.9
D000023953	F09	H10407_SANG_CHROM2_746_1_939	putative phage protein	992	CBJ02249	1.7651
D000023956	F10	H10407_SANG_p948.060_0_1_267	Not Available	320	Not Annotated	1.9938

Clone ID	Well Position	Locus ID	Description (Gene name)	ORF Length	Accession Number	Average Depth of Coverage
D000023958	F11	H10407_SANG_CHROM4_319_1_939	putative phage O protein	992	CBI99778	4.125
D000023959	F12	h104_Ch_g353_1_270	conserved hypothetical protein	323	CBJ01446	2
D000023962	G01	H10407_SANG_CHROM2_599_520_1461	putative peptidase	998	CBJ02103	1.6202
D000023963	G02	H10407_SANG_CHROM2_799_1_270	conserved hypothetical protein	323	CBJ02303	2
D000023965	G03	H10407_SANG_CHROM2_058_127_1071	cellulose synthesis regulatory protein (signal transduction protein)	1001	CBJ01561	3.4276
D000023967	G04	H10407_SANG_CHROM2_823_70_339	putative outer membrane assembly lipoprotein	326	CBJ02327	1.9448
D000023970	G05	H10407_SANG_CHROM3_161_1_951	RNA polymerase sigma factor	1004	CBJ02660	1.7799
D000023972	G06	H10407_SANG_CHROM2_855_1_270	putative alpha-amylase precursor, pseudogene	323	Not Annotated	2
D000023973	G07	H10407_SANG_CHROM1_542_1_954	putative LRR repeat protein	1007	CBJ01046	2.9722
D000023975	G08	H10407_SANG_CHROM0_776A_1_273	transposase	326	CBJ00281	1.7883
D000023977	G09	H10407_SANG_CHROM2_180_1_957	putative UDP-D-galactose:(glucosyl) lipopolysaccharide-1,6-D-galactosyltransferase	1010	CBJ01682	3.303
D000023980	G10	H10407_SANG_CHROM0_852_1_273	insertion element is1 protein InsA	326	CBJ00361	1.9939
D000023982	G11	H10407_SANG_CHROM4_520_301_1257	HflK protein	1013	CBJ04029	1.617
D000023983	G12	H10407_SANG_CHROM1_122A_1_273	Not Available	326	Not Annotated	3.2055
D000023986	H01	H10407_SANG_p666.055_0_1_960	Not Available	1013	Not Annotated	3.1718
D000023988	H02	H10407_SANG_CHROM4_446_1_273	transposase	326	CBJ00629	2
D000023989	H03	H10407_SANG_CHROM2_246_70_1032	putative fimbrial adhesin	1019	CBJ01750	1.7174
D000023991	H04	H10407_SANG_p666.062_0_1_273	putative insertion element	326	Not Annotated	3.2178
D000023994	H05	H10407_SANG_CHROM1_523_94_1059	possible exported protein	1022	CBJ01027	3.2466
D000023995	H06	H10407_SANG_CHROM3_258_1_276	conserved hypothetical protein	329	CBJ02759	1.8841
D000023997	H07	H10407_SANG_CHROM4_509_1_966	phosphatidylserine decarboxylase proenzyme	1019	CBJ04018	1.6889
D000023999	H08	h104_Ch_g980_1_279	conserved hypothetical protein	332	Not Annotated	2
D000024001	H09	H10407_SANG_CHROM2_407_1_969	putative peptidase	1022	CBJ01911	1.6781
D000024003	H10	H10407_SANG_CHROM2_113_1_279	hypothetical protein	332	CBJ01615	2