

**Enterotoxigenic *Escherichia coli*
Expression Clone Set, Recombinant in
Escherichia coli, Plate 2**

Catalog No. NR-19791

This reagent is the tangible property of the U.S. Government.

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-19791.

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-19791 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 2, NR-19791."

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.

Disclaimers:

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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.

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Table 1: Enterotoxigenic *E. coli* Expression Clone Set, Recombinant in *Escherichia coli*, Plate 2 (EEXAB)

Clone ID	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
D000022693	A03	EcB7A_2312_1_501	sulfurtransferase	554	ZP_03028426	2
D000022695	A04	EcB7A_C4_g18_1_219	inner membrane ABC transporter permease	275	ZP_03026866	2
D000022697	A05	EcB7A_3089_79_579	phage minor tail protein	557	ZP_03028415	2
D000022699	A06	EcB7A_C21_g20_1_222	transcriptional regulator, LysR family	275	ZP_03026868	2
D000022702	A07	EcB7A_4230_1_510	hydrogenase-1 operon protein HyaF	563	ZP_03028367	2
D000022713	B01	EcB7A_4207_1_522	cold shock DNA-binding protein	575	ZP_03028394	2
D000022715	B02	EcB7A_C22_g4_1_225	acetyl-CoA acetyltransferase	281	ZP_03026966	2
D000022717	B03	EcB7A_3133_1_525	TMAO reductase system sensor TorS	578	ZP_03028393	2
D000022719	B04	EcB7A_C64_g1_1_225	acetyl-CoA acetyltransferase	281	ZP_03026966	2
D000022721	B05	EcB7A_3464_211_735	cupin family protein	581	ZP_03030135	2
D000022726	B07	EcB7A_C4_g13_1_528	Eaa protein	584	ZP_03028396	2
D000022727	B08	EcB7A_C12_g27_1_231	30S ribosomal protein, S22 family	284	ZP_03026832	2
D000022729	B09	EcB7A_C4_g21_1_531	Eaa protein	587	ZP_03028420	2
D000022732	B10	EcB7A_C50_g5_1_231	30S ribosomal protein, S22 family	287	ZP_03026832	2
D000022735	B12	EcB7A_C67_g3_1_231	30S ribosomal protein, S22 family	287	ZP_03026832	2
D000022738	C01	EcB7A_5025_1_540	putative repressor protein	596	ZP_03028391	2
D000022743	C04	EcB7A_C31_g10_1_234	addiction module antidote protein, HigA family	290	ZP_03026890	2
D000022747	C06	EcB7A_C75_g15_1_234	addiction module antidote protein, HigA family	287	ZP_03026890	2
D000022751	C08	EcB7A_2479_433_666	glucarate permease	290	ZP_03030338	2
D000022754	C09	EcB7A_4896_94_648	fucose operon protein FucU	611	ZP_03030333	2
D000022755	C10	EcB7A_C51_g6_1_237	hypothetical protein	293	NA	2
D000022757	C11	EcB7A_0195_1_561	bacteriophage lysis protein	614	ZP_03028378	2
D000022759	C12	EcB7A_C1_g18_1_240	outer membrane porin	296	ZP_03027016	2
D000022763	D02	EcB7A_C75_g19_1_240	outer membrane porin	296	ZP_03027016	2
D000022767	D04	EcB7A_2999_1_240	outer membrane porin	293	ZP_03027016	2
D000022769	D05	EcB7A_C183_g1_1_579	phage minor tail protein	635	ZP_03028415	2
D000022774	D07	EcB7A_3481_1_579	phage minor tail protein	632	ZP_03028415	2
D000022776	D08	EcB7A_C12_g45_1_243	nitrate reductase 2, alpha subunit	296	ZP_03026854	2
D000022777	D09	EcB7A_2323_1_582	hypothetical protein	638	NA	2
D000022781	D11	EcB7A_2478_1_585	CDP-diacylglycerol--serine O-phosphatidyltransferase	638	ZP_03029772	2
D000022791	E04	EcB7A_C15_g13_1_246	respiratory nitrate reductase 2, gamma subunit	302	ZP_03027034	2
D000022794	E05	EcB7A_0048_1_600	sigma-E factor regulatory protein RseC	653	ZP_03029763	2
D000022795	E06	EcB7A_C19_g5_1_246	respiratory nitrate reductase 2, gamma subunit	299	ZP_03027034	2
D000022799	E08	EcB7A_C53_g7_1_246	respiratory nitrate reductase 2, gamma subunit	302	ZP_03027034	2
D000022801	E09	EcB7A_4185_1_612	tRNA-specific adenosine deaminase	665	ZP_03029780	2
D000022803	E10	EcB7A_C148_g4_1_249	flavin reductase domain protein	305	ZP_03026861	2
D000022805	E11	EcB7A_5152_1_615	hypothetical protein	671	NA	2
D000022807	E12	EcB7A_C5_g4_1_249	flavin reductase domain protein	305	ZP_03026861	2
D000022809	F01	EcB7A_0415_1_618	putative lipoprotein	671	ZP_03029792	2
D000022811	F02	EcB7A_C67_g8_1_249	flavin reductase domain protein	302	ZP_03026861	2
D000022815	F04	EcB7A_2078_1_249	flavin reductase domain protein	302	ZP_03026861	2
D000022817	F05	EcB7A_3291_1_621	impA-related N-terminal domain	674	ZP_03030396	2
D000022819	F06	EcB7A_3128_1_252	regulatory protein	305	ZP_03030973	2
D000022823	F08	EcB7A_C12_g43_1_255	hypothetical protein	311	NA	2
D000022827	F10	EcB7A_C145_g4_1_255	hypothetical protein	308	NA	2
D000022829	F11	EcB7A_3341_1_654	exodeoxyribonuclease-9	707	ZP_03030330	2
D000022831	F12	EcB7A_C52_g4_1_255	hypothetical protein	308	NA	2
D000022835	G02	EcB7A_C54_g4_1_255	hypothetical protein	311	NA	2

Clone ID	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
D000022839	G04	EcB7A_C88_g3_1_255	hypothetical protein	311	NA	2
D000022843	G06	EcB7A_C98_g2_1_255	Not Available	311	NA	2
D000022847	G08	EcB7A_C21_g1_1_258	conserved hypothetical protein	314	ZP_03027014	2
D000022852	G10	EcB7A_C2_g11_1_261	conserved hypothetical protein	314	ZP_03026973	2
D000022854	G11	EcB7A_3716_1_708	conserved hypothetical protein	761	ZP_03029124	1.9961
D000022855	G12	EcB7A_C22_g8_1_261	conserved hypothetical protein	314	ZP_03026973	2
D000022859	H02	EcB7A_5153_1_261	conserved hypothetical protein	314	ZP_03026973	2
D000022861	H03	EcB7A_0575_1_717	maltose O-acetyltransferase	770	ZP_03029322	1.9935
D000022863	H04	EcB7A_C127_g8_1_264	oxidoreductase, zinc-binding dehydrogenase family	320	ZP_03026895	2
D000022868	H06	EcB7A_C15_g3_1_264	oxidoreductase, zinc-binding dehydrogenase family	320	ZP_03026895	2
D000022870	H07	EcB7A_0823_1_729	tRNA (5-ethylaminomethyl-2-thiouridylate)-methyltransferase	782	ZP_03030119	1.991
D000022871	H08	EcB7A_1478_1_264	oxidoreductase, zinc-binding dehydrogenase family	320	ZP_03026895	2
D000022875	H10	EcB7A_4205_1_264	oxidoreductase, zinc-binding dehydrogenase family	317	ZP_03026895	2