



GLOBAL PRIORITY SUPERBUGS

Molecular Detection

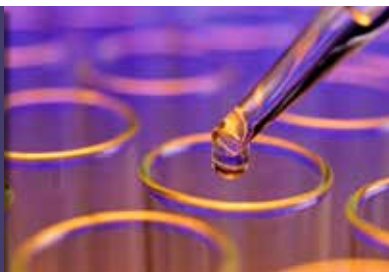


ENHANCE YOUR ANTIMICROBIAL RESISTANCE RESEARCH EFFORTS

ATCC has assembled a new collection of clinically relevant and extensively characterized multidrug-resistant isolates with validated genotypic and phenotypic activity against a variety of critical drug classes. With each strain in the new ATCC® Global Priority Superbugs collection, you can expect:

- **Susceptibility data** – MIC values and susceptibility profiles for targeted drugs
- **Genetic data** – NGS-assembled whole genome sequence with predicted annotated antibiotic resistance and rRNA genes
- **Source information** – Data such as geography, collection date, and collection site

Assay Development



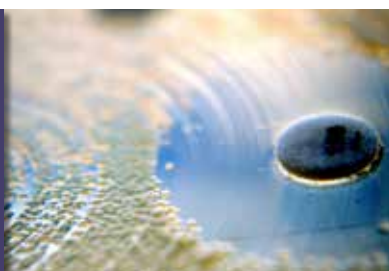
Each multidrug-resistant strain delivers expanded levels of source metadata and genomic characterization, creating essential tools for all stages of the discovery and development process for novel antimicrobials and therapeutics, molecular-based detection assays, and updated sterility protocols.

GET YOUR RESEARCH STARTED FASTER

With the ATCC® Global Priority Superbugs collection, we have taken the guesswork out of strain selection! Using our new selection tool, you can quickly browse the collection by:

- Gene activity
- Annotated gene
- Drug class
- Drug type

Novel Antimicrobials



Make fast, intelligent choices by cross-comparing strains by species, antimicrobial susceptibility profiles, isolation sources, collection dates, and biosafety levels to quickly narrow down results with this comprehensive and easy-to-use search tool.

Innovative Therapeutics



SUPPORT RESEARCH ON PRIORITY PATHOGENS

In response to the growing levels of antimicrobial resistance among pathogens, the World Health Organization prepared a list of priority pathogens in 2017 to help direct research and development efforts toward the production of novel drugs. This list is organized into critical (1), high (2), and medium (3) priority levels.

To support these efforts, ATCC provides strains within the ATCC® Global Priority Superbugs collection that represent critical priority 1 pathogens:

- *Acinetobacter baumannii* – carbapenem-resistant
- *Pseudomonas aeruginosa* – carbapenem-resistant
- Enterobacteriaceae – carbapenem-resistant, 3rd generation cephalosporin-resistant

Sterility Protocols



As the ATCC® Global Priority Superbugs collection expands, ATCC will continue to seek out additional strains that represent pathogens within each of the priority levels. Make sure you check back often for new additions!

To learn more about the ATCC® Global Priority Superbugs collection and our selection tool, visit us online at www.atcc.org/GlobalPrioritySuperbugs.

ATCC® GLOBAL PRIORITY SUPERBUGS COLLECTION

We're giving you more data! Check out the genetic information provided for our current list of strains in the table below, or use our online selection tool to search for strains by antibiotic, including:

- Amikacin
- Amoxicillin-clavulanate
- Aztreonam
- Cefepime
- Ceftazidime
- Ceftazidime-avibactam
- Ceftriaxone
- Ciprofloxacin
- Colistin
- Colistin-P80
- Doripenem
- Fosfomycin
- Imipenem
- Levofloxacin
- Meropenem
- Piperacillin-tazobactam
- Tetracycline
- Tigecycline
- Trimethoprim-sulfamethoxazole

Access the Global Priority Superbugs collection selection tool at www.atcc.org/GlobalPrioritySuperbugs to order your data-enhanced, antimicrobial-resistant controls today!

ATCC® No.	Species	Strain	Isolation Source	Annotated Genes
BAA-2774™	<i>Escherichia coli</i>	1093925	Abscess, general surgery, 50-year-old male, Argentina, Latin America, 2014	AAC(3)-IIa, AAC(6')-Ib-cr, <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>baeR</i> , <i>CMY-47</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>emrE</i> , <i>KPC-2</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>msbA</i> , <i>OXA-1</i> , <i>tet(A)</i> , <i>tolC</i>
BAA-2775™	<i>Escherichia coli</i>	1099675	75-year-old male, decubitus, Czech Republic, 2014	AAC(3)-IIa, <i>aadA5</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ib</i> , <i>APH(6)-Id</i> , <i>baeR</i> , <i>CMY-47</i> , <i>CTX-M-14</i> , <i>emrB</i> , <i>emrE</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>mexB</i> , <i>msbA</i> , <i>TEM-1</i> , <i>tet(G)</i> , <i>tolC</i>
BAA-2776™	<i>Escherichia coli</i>	1099705	78-year-old female, urine, general medical clinic, Czech Republic, 2014	AAC(3)-IIa, <i>aadA5</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ib</i> , <i>APH(6)-Id</i> , <i>baeR</i> , <i>CMY-47</i> , <i>CTX-M-14</i> , <i>emrB</i> , <i>emrE</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>mexB</i> , <i>msbA</i> , <i>TEM-1</i> , <i>tet(G)</i> , <i>tolC</i>
BAA-2777™	<i>Escherichia coli</i>	1106769	40-year-old female, urine, general surgery, Nigeria, 2014	AAC(3)-IIa, AAC(6')-Ib-cr, <i>aadA5</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ib</i> , <i>baeR</i> , <i>CMY-47</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>emrE</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mexB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>msbA</i> , <i>tet(G)</i> , <i>tolC</i>
BAA-2778™	<i>Escherichia coli</i>	1123005	46-year-old female, urine, emergency room, Nigeria, 2014	AAC(6')-Ib-cr, AAC(3)-IIa, <i>aadA5</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ib</i> , <i>APH(6)-Id</i> , <i>baeR</i> , <i>CMY-2</i> , <i>CMY-47</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>msbA</i> , <i>OXA-1</i> , <i>TEM-1</i> , <i>tet(A)</i> , <i>tolC</i>
BAA-2779™	<i>Escherichia coli</i>	1136922	83-year-old male, urine, emergency room, Israel, 2014	AAC(3)-IIa, AAC(6')-Ib-cr, <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ib</i> , <i>APH(6)-Id</i> , <i>baeR</i> , <i>catB3</i> , <i>CMY-2</i> , <i>CMY-47</i> , <i>emrB</i> , <i>KPC-2</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>msbA</i> , <i>OXA-1</i> , <i>qnrB20</i> , <i>TEM-1</i> , <i>tet(G)</i> , <i>tolC</i>
BAA-2780™	<i>Escherichia coli</i>	1138276	70-year-old female, abscess, general medicine, Mexico, 2014	AAC(3)-IIa, AAC(6')-Ib-cr, <i>aadA5</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>baeR</i> , <i>CMY-2</i> , <i>CMY-47</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>floR</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>msbA</i> , <i>OXA-1</i> , <i>tet(A)</i> , <i>tet(G)</i> , <i>tolC</i>
BAA-2781™	<i>Escherichia coli</i>	1144993	52-year-old female, blood, medicine ICU, Turkey, 2014	<i>aadA5</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ib</i> , <i>APH(6)-Id</i> , <i>baeR</i> , <i>CMY-47</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>emrE</i> , <i>macA</i> , <i>macB</i> , <i>marA</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mdtF</i> , <i>mexB</i> , <i>msbA</i> , <i>tet(G)</i> , <i>tolC</i>
BAA-2782™	<i>Klebsiella pneumoniae</i>	931476	55-year-old female, peritoneal fluid, general surgery, Brazil, 2013	AAC(6')-Ib-cr, <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>APH(3'')-Ia</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>macB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mexB</i> , <i>msbA</i> , <i>oqxA</i> , <i>oqxB</i> , <i>OXA-1</i> , <i>SHV-1</i> , <i>tolC</i>
BAA-2783™	<i>Klebsiella pneumoniae</i>	972863	35-year-old male, large colon, surgery ICU, Serbia, 2013	AAC(3)-IIa, <i>aadA2</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>adeB</i> , <i>armA</i> , <i>CTX-M-2</i> , <i>CTX-M-15</i> , <i>emrB</i> , <i>macB</i> , <i>mdtC</i> , <i>msbA</i> , <i>msrE</i> , <i>oqxA</i> , <i>oqxB</i> , <i>OXA-2</i> , <i>SHV-1</i> , <i>TEM-1</i> , <i>tet(A)</i> , <i>tet(G)</i>
BAA-2784™	<i>Klebsiella pneumoniae</i>	1147843	53-year-old female, urine, medicine ICU, United States, 2014	AAC(6')-Ib, <i>acrA</i> , <i>acrB</i> , <i>acrE</i> , <i>acrD</i> , <i>acrF</i> , <i>adeB</i> , <i>catB3</i> , <i>emrB</i> , <i>KPC-3</i> , <i>macB</i> , <i>mexB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>msbA</i> , <i>mexB</i> , <i>oqxA</i> , <i>oqxB</i> , <i>SHV-66</i> , <i>tolC</i>
BAA-2785™	<i>Klebsiella pneumoniae</i>	BK33650	United States, 2010	AAC(3)-IV, <i>aadA</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>adeB</i> , <i>APH(3'')-Ia</i> , <i>catI</i> , <i>emrB</i> , <i>KPC-2</i> , <i>macB</i> , <i>mexB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>msbA</i> , <i>mexB</i> , <i>oqxA</i> , <i>oqxB</i> , <i>SHV-11</i> , <i>tolC</i>
BAA-2786™	<i>Klebsiella pneumoniae</i>	BK34774	Deep wound, United States, 2010	AAC(6')-Ib, <i>aadA</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>adeB</i> , <i>emrB</i> , <i>KPC-3</i> , <i>macB</i> , <i>mexB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mexB</i> , <i>msbA</i> , <i>oqxA</i> , <i>oqxB</i> , <i>OXA-9</i> , <i>SHV-66</i> , <i>TEM-1</i> , <i>tolC</i>
BAA-2787™	<i>Klebsiella pneumoniae</i>	BK34786	Urine, United States, 2010	AAC(3)-IV, <i>aadA3</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>adeB</i> , <i>emrB</i> , <i>KPC-3</i> , <i>macB</i> , <i>mexB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mexB</i> , <i>msbA</i> , <i>oqxA</i> , <i>oqxB</i> , <i>OXA-9</i> , <i>SHV-66</i> , <i>tolC</i>
BAA-2788™	<i>Klebsiella pneumoniae</i>	BK34907	Urine, United States, 2011	AAC(3)-IV, AAC(6')-Ib, <i>aadA</i> , <i>acrA</i> , <i>acrB</i> , <i>acrD</i> , <i>acrE</i> , <i>acrF</i> , <i>adeB</i> , <i>APH(3'')-Ia</i> , <i>catI</i> , <i>emrB</i> , <i>KPC-2</i> , <i>macB</i> , <i>mexB</i> , <i>mdtB</i> , <i>mdtC</i> , <i>mexB</i> , <i>msbA</i> , <i>oqxA</i> , <i>oqxB</i> , <i>SHV-11</i> , <i>tolC</i>

ATCC® No.	Species	Strain	Isolation Source	Annotated Genes
BAA-2789™	<i>Klebsiella pneumoniae</i>	BK35106	Blood, United States, 2012	<i>aadA, aadA2, APH(3'')-Ia, AAC(6'')-Ib, acrA, acrB, acrD, acrE, acrF, adeB, APH(3'')-Ib, APH(6)-Id, emrB, KPC-3, macB, mdsB, mdtB, mdtC, mexB, msbA, oqxA, oqxB, OXA-9, SHV-11, TEM-1, tolC</i>
BAA-2790™	<i>Klebsiella pneumoniae</i>	BK35639	Wound, United States, 2012	<i>aadA2, AAC(6'')-Ib, acrA, acrB, acrD, acrE, acrF, adeB, catI, emrB, KPC-2, macB, mdsB, mdtB, mdtC, mexB, msbA, oqxA, oqxB, SHV-11, tolC</i>
BAA-2791™	<i>Proteus mirabilis</i>	927889	79-year-old male, urine, general medical clinic, Greece, 2013	<i>AAC(1), AAC(6'')-Ib7, acrB, APH(3'')-Ia, APH(3'')-Ib, APH(3'')-VIa, APH(6)-Id, cat, catI, CMY-4, macB, mdtB, mdtC, mexB, mexH, mexI, msbA, TEM-1, tet(G), tet(J)</i>
BAA-2792™	<i>Proteus mirabilis</i>	1104843	50-year-old male, urine, general medicine, Greece, 2014	<i>AAC(1), AAC(6'')-Ib7, acrB, APH(3'')-Ia, APH(3'')-Ib, APH(6)-Id, cat, catI, CMY-16, macB, mdtB, mdtC, mexB, mexH, mexI, msbA, TEM-2, tet(G), tet(J), VIM-1</i>
BAA-2793™	<i>Pseudomonas aeruginosa</i>	1077994	26-year-old female, urine, general medicine, Chile, 2014	<i>amrA, amrB, APH(3'')-IIB, APH(3'')-VIa, APH(6)-Id, catB7, catII, KPC-2, macB, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, muxB, muxC, oprM, OXA-50, PDC-3, VIM-2</i>
BAA-2794™	<i>Pseudomonas aeruginosa</i>	1079232	28-year-old female, abscess, general medicine, Thailand, 2014	<i>aadA6, amrA, amrB, APH(3'')-IIB, catB7, floR, GES-5, macA, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, muxB, muxC, oprM, OXA-50, PDC-2, tet(G)</i>
BAA-2795™	<i>Pseudomonas aeruginosa</i>	1106432	70-year-old male, urine, general medicine, Kenya, 2014	<i>amrA, amrB, APH(3'')-Ib, APH(3'')-IIB, APH(3'')-VIa, APH(6)-Id, catB7, floR, LCR-1, macB, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, msrE, muxB, muxC, NDM-1, oprM, OXA-10, OXA-50, OXA-129, PDC-1, qnrVC1, tet(G)</i>
BAA-2796™	<i>Pseudomonas aeruginosa</i>	1106434	32-year-old male, blood, general medicine, Kenya, 2014	<i>aadA, amrA, amrB, APH(3'')-IIB, APH(3'')-VI, catB7, macB, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, muxB, muxC, NDM-1, oprM, OXA-10, OXA-50, PDC-3, tet(G), VEB-9</i>
BAA-2797™	<i>Pseudomonas aeruginosa</i>	1109196	51-year-old male, endotracheal aspirate, surgery ICU, Colombia, 2014	<i>aadA, amrA, amrB, ANT(2'')-Ia, APH(3'')-IIB, catB7, KPC-2, macB, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, muxB, muxC, oprM, OXA-2, OXA-50, PDC-2</i>
BAA-2798™	<i>Pseudomonas aeruginosa</i>	1124989	34-year-old male, sputum, general medicine, Spain, 2014	<i>amrA, amrB, APH(3'')-IIB, catB7, macB, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, muxB, muxC, oprM, OXA-50, PDC-1</i>
BAA-2799™	<i>Pseudomonas aeruginosa</i>	1145009	55-year-old male, blood, medicine ICU, Turkey, 2014	<i>amrA, amrB, APH(3'')-Ib, APH(3'')-IIB, APH(3'')-VIa, APH(6)-Id, catB7, catI, macB, mdsA, mdsB, mexA, mexB, mexC, mexD, mexE, mexF, mexH, mexI, mexK, mexN, mexP, mexQ, mexV, mexW, msbA, muxB, muxC, oprM, OXA-2, OXA-50, PDC-7, PER-1, VIM-5</i>
BAA-2800™	<i>Acinetobacter baumannii</i>	1074318	57-year-old male, abscess, general surgery, Spain, 2014	<i>ADC-2, adeA, adeB, adeC, adeF, adeG, adel, adeJ, adeK, adeR, adeS, APH(3'')-Ib, APH(6)-Id, macA, macB, mexB, mexK, OXA-66, tet(A)</i>
BAA-2801™	<i>Acinetobacter baumannii</i>	1103521	36-year-old female, endotracheal aspirate, medicine ICU, Venezuela, 2014	<i>AAC(3)-IIa, ADC-2, adeA, adeB, adeF, adeG, adel, adeJ, adeK, adeR, adeS, APH(3'')-Ib, APH(6)-Id, macA, macB, mexB, mexK, mexN, OXA-23, OXA-64, PER-1, TEM-1, tet(A)</i>
BAA-2802™	<i>Acinetobacter baumannii</i>	1109222	37-year-old male, blood, Colombia, 2014	<i>AAC(3)-IIa, ADC-2, adeA, adeB, adeF, adeG, adel, adeJ, adeK, adeR, adeS, APH(3'')-Ib, APH(6)-Id, macA, macB, mexB, mexK, msrE, NDM-1, OXA-64, TEM-1, tet(A)</i>
BAA-2803™	<i>Acinetobacter baumannii</i>	1125209	73-year-old male, sputum, general medicine, Italy, 2014	<i>AAC(6'')-Ib7, ADC-2, aadA, adeA, adeB, adeC, adeF, adeG, adel, adeJ, adeK, adeR, adeS, APH(3'')-Ia, APH(3'')-IB, APH(3'')-VIa, APH(6)-Id, arma, catB8, macA, macB, mexB, mexK, msrE, OXA-23, OXA-66, tet(A)</i>
BAA-2806™	<i>Enterobacter cloacae</i>	976689	33-year-old male, urine, general medicine, Russia, 2013	<i>AAC(6'')-Ib-cr, aadA17, acrA, acrB, acrD, acrF, ACT-25, APH(3'')-Ia, APH(6)-Id, cat, cmeB, CTX-M-15, emrB, floR, KPC-2, macB, mdtB, mdtC, msbA, oqxA, oqxB, OXA-1, qnrB1, qnrS1, rama, robA, tet(G), tolC</i>
BAA-2807™	<i>Citrobacter freundii</i>	990954	54-year-old male, skin ulcer, general surgery, Brazil, 2013	<i>AAC(3)-IIa, AAC(6'')-Ib-cr, aadA2, aadA, acrA, acrB, acrD, acrE, acrF, APH(3'')-Ib, APH(6)-Id, CMY-48, CTX-M-15, emrB, macB, mdtB, mdtE, mdtF, msbA, OXA-1, qnrB1, TEM-1, tet(G), tolC</i>
BAA-2808™	<i>Serratia marcescens</i>	938677	72-year-old male, urine, Romania, 2013	<i>AAC(6'')-Ib-cr, aadA2, acrA, acrB, acrD, acrF, armA, CTX-M-3, emrB, macB, mdtB, mdtC, mexH, mexI, msbA, msrE, oqxA, oqxB, OXA-1, SRT-2, TEM-1, tet(41)</i>

A PORTFOLIO OF PRODUCTS TO MEET YOUR NEEDS

Intelligent research and reliable data starts with consistent controls. Whether you are developing innovative molecular-based detection methods, evaluating antibiotic susceptibility profiles, designing novel therapeutics, or testing clinical settings for contamination, ATCC has the dependable products and services you need to advance your research, including:

- Antimicrobial-resistant strains isolated from clinical and environmental sources
- Microbial panels comprising drug-resistant microorganisms
- Primary cells for drug toxicity screening studies
- Media, reagents, and growth kits that support cellular expansion

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