BIOBALL® Available Strains List Issue 90

BIOBALL® contains a precise number of microorganisms in a water-soluble ball delivering unprecedented accuracy and precision for Quantitative Microbiological Quality Control.
BIOBALL® is a Certified Reference Material manufactured under accreditation to ISO 17034:2016.

BIOBALL® SingleShot

SingleShot - mean of between 28 and 33 cfu with a standard deviation of 3 cfu or less (unless otherwise stated).

Reference 20 vials/ 20 tests	Reference 10 vials/ 10 tests	Organism	BIOBALL Strain	Corresponding Strains	Cell Type	Shelf life from date of manufacture^
56022	N/A	*Aspergillus brasiliensis****	NCPF 2275	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053	Spore	2 Years
56023	N/A	*Bacillus cereus*	NCTC 7464	ATCC10876, NCIMB8579, NRRL569	Spore	2 Years
56024	N/A	*Bacillus spizizenii* (Previously *Bacillus subtilis* subsp. *spizizenii*)	NCTC 10400	ATCC6633, CIP52.62, NCIMB8054, NBRC3134	Spore	2 Years
56068	N/A	Blank BIOBALL *(containing no microorganisms)*	N/A	N/A	N/A	3 Years
N/A	414301	*Burkholderia cepacia**	NCTC 10743	ATCC25416, DSM7288, CIP80.24	Cell	1 Year
56026	N/A	*Candida albicans**	NCPF 3179	ATCC10231, CIP48.72, NBRC1594, WDCM00054	Cell	2 Years
56027	N/A	*Citrobacter freundii***	NCTC 9750	ATCC8090, DSM30039, NBRC12681, CIP57.32	Cell	1 Year
56028	N/A	*Clostridium perfringens**	NCTC 8798	CIP106157	Spore	2 Years
56029	N/A	*Clostridium sporogenes*	NCTC 12935	ATCC11437, NBRC14293, NCIMB12343, CIP100651, DSM1446	Spore	2 Years
421876	N/A	*Cutibacterium acnes**** (Previously *Propionibacterium acnes*)	DSM 1897	ATCC6919, CIP53.117, JCM6425, KCTC3314, NCTC737	Cell	2 Years
56030	N/A	*Klebsiella aerogenes* (Previously *Enterobacter aerogenes*)	NCTC 10006	ATCC13048, DSM30053, CDC819-56	Cell	2 Years
56031	N/A	*Enterococcus faecalis*	NCTC 12697	ATCC29212, WDCM00087	Cell	2 Years
56032	N/A	*Enterococcus faecalis*	NCTC 775	ATCC19433, DSM20478, WDCM00009	Cell	2 Years
56035	N/A	*Escherichia coli**	NCTC 12241	ATCC25922, DSM1103, NCIMB12210, WDCM00013	Cell	2 Years
56034	N/A	*Escherichia coli*	NCTC 12923	ATCC8739, NCIMB8545, CIP53.126, NBRC3972, WDCM00012	Cell	2 Years
56033	N/A	*Escherichia coli*	NCTC 9001	ATCC11775, DSM30083, CIP54.8, WDCM00090	Cell	2 Years
412690	N/A	*Kocuria rhizophila****	NCTC 8340	ATCC9341	Cell	2 Years
56038	N/A	*Listeria innocua*	NCTC 11288	ATCC33090, DSM20649, WDCM00017	Cell	2 Years
56039	N/A	*Listeria monocytogenes*	NCTC 11994	WDCM00019, DSM15675	Cell	2 Years
423233	N/A	*Methylobacterium extorquens* *****	NBRC 15911	ATCC BAA-2500	Starved Cell^^	2 Years
56040	N/A	*Pseudomonas paraeruginosa** (Previously *Pseudomonas aeruginosa*)	NCTC 12924	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026	Cell	2 Years
56041	N/A	*Salmonella* Abaetetuba	NCTC 8244	CDC4905-51	Cell	2 Years
423616	N/A	*Salmonella* Abony	NCTC 6017	NBRC100797, CIP80.39, DSM4224, WDCM00029	Cell	2 Years
56043	N/A	*Salmonella* Salford****	IMVS 1710	N/A	Cell	2 Years
56044	N/A	*Salmonella* Typhimurium	NCTC 12023	ATCC14028, DSM19587, NCIMB13284, WDCM00031	Cell	2 Years
56045	N/A	*Staphylococcus aureus****	NCTC 10788	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032	Cell	2 Years
56092	N/A	*Staphylococcus epidermidis***	NCTC 6513	CCUG3709	Cell	2 Years
56046	N/A	*Streptococcus pyogenes*	NCTC 12696	ATCC19615, CIP1042.26	Cell	2 Years

^All BIOBALL strains and Re-Hydration Fluid products are shipped with a minimum of 6 months shelf life remaining.
^^Starvation is performed in sterile purified water at 22 °C for 3 days following the Japanese Pharmacopoeia methodology (reference JP G8 Water 4.4.2 Media Growth Promotion Test).
*Standard deviation ≤ 3.5, ** Standard deviation ≤ 4, *** Standard deviation ≤ 4.5, ****Mean of between 40 and 60 cfu with a standard deviation of 7 cfu or less, ***** Mean of between 67 and 83 cfu with a standard deviation of ≤ 15%. Blank BIOBALL is not a "Certified Reference Material".

BIOBALL® MultiShot 550

MultiShot 550 - mean of between 500 and 600 cfu with
a standard deviation ≤ 10% of the mean (unless otherwise stated).

Reference 20 vials / 200 tests	Reference 10 vials / 100 tests	Organism	BIOBALL Strain	Corresponding Strains	Cell Type	Shelf life from date of manufacture^
56011	**56001**	*Aspergillus brasiliensis*	**NCPF 2275**	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053	Spore	2 Years
56012	**56002**	*Bacillus spizizenii* (Previously *Bacillus subtilis* subsp. *spizizenii*)	**NCTC 10400**	ATCC6633, CIP52.62, NCIMB8054, NBRC3134	Spore	2 Years
N/A	**423580**	*Burkholderia cenocepacia*#	**NCTC 13227**	ATCC BAA-245, LMG16656	Cell	2 Years
423504	**416589**	*Burkholderia cepacia*##	**NCTC 10743**	ATCC25416, DSM7288, CIP80.24	Cell	2 Years
N/A	**423581**	*Burkholderia multivorans*	**NCTC 13007**	ATCC BAA-247, LMG13010, CCUG34080, CIP105495, DSM13243	Cell	2 Years
56013	**56003**	*Candida albicans*	**NCPF 3179**	ATCC10231, CIP48.72, NBRC1594, WDCM00054	Cell	2 Years
56014	**56004**	*Clostridium sporogenes*	**NCTC 12935**	ATCC11437, NBRC14293, NCIMB12343, CIP100651, DSM1446	Spore	2 Years
N/A	**416600**	*Cutibacterium acnes* (Previously *Propionibacterium acnes*)	**DSM 1897**	ATCC6919, CIP53.117, JCM6425, KCTC3314, NCTC737	Cell	2 Years
56015	**56005**	*Enterococcus faecalis*	**NCTC 12697**	ATCC29212, WDCM00087	Cell	2 Years
56016	**56006**	*Escherichia coli*	**NCTC 12923**	ATCC8739, NCIMB8545, CIP53.126, NBRC3972, WDCM00012	Cell	2 Years
N/A	**425094**	*Micrococcus luteus*	**API 82-06-057**	ATCC 700405	Cell	2 Years
56017	**56007**	*Pseudomonas paraeruginosa* (Previously *Pseudomonas aeruginosa*)	**NCTC 12924**	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026	Cell	2 Years
423617	**423619**	*Salmonella* Abony	**NCTC 6017**	NBRC100797, CIP80.39, DSM4224, WDCM00029	Cell	2 Years
56019	**56009**	*Staphylococcus aureus*	**NCTC 10788**	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032	Cell	2 Years
N/A	**424957**	*Shigella boydii*###	**NCTC 12985**	ATCC 8700, CIP 82.50, DSM 7532	Cell	2 Years
N/A	**424973**	*Streptococcus pyogenes*#	**NCTC 12696**	ATCC19615, CIP1042.26	Cell	2 Years
N/A	**423728**	*Bacillus subtilis*####	**CICC 10275**	CMCC(B)63501	Spore	2 Years
N/A	**423843**	*Candida albicans*####	**CICC 1965**	CMCC(F)98001	Cell	2 Years
N/A	**423726**	*Escherichia coli*####	**CICC 10389**	CMCC(B)44102	Cell	2 Years
N/A	**423729**	*Staphylococcus aureus*####	**CICC 10384**	CMCC(B)26003	Cell	2 Years
N/A	**423845**	*Pseudomonas aeruginosa*####	**CICC 10419**	CMCC(B)10104	Cell	2 Years
56021	**N/A**	Re-Hydration Fluid	**N/A**	N/A	N/A	5 Years
410386	**N/A**	14 Day Re-Hydration Fluid	**N/A**	N/A	N/A	2 Years
417843	**N/A**	Alternative Re-Hydration Fluid	**N/A**	N/A	N/A	1 Year

^All BIOBALL strains and Re-Hydration Fluid products are shipped with a minimum of 6 months shelf life remaining.
Mean of between 450 and 650 cfu with a standard deviation ≤ 15% of the mean.
Mean of between 500 and 600 cfu with a standard deviation ≤ 15% of the mean.
Available only in India. Mean of between 450 and 650 cfu with a standard deviation ≤ 15% of the mean.
Make-to-order. Please contact your bioMérieux Account Manager for details.

NCTC National Collection of Type Cultures
NCPF National Collection of Pathogenic Fungi

BIOBALL® MultiShot 10E8

MultiShot 10E8 - mean of between 0.7 and 1.5 x 10^8
with a standard deviation of ≤ 20% of the mean.

Reference 10 vials / 100 tests	Organism	BIOBALL Strain	Corresponding Strains	Cell Type	Shelf life from date of manufacture^
410106	*Aspergillus brasiliensis*	**NCPF 2275**	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053	Spore	2 Years
423596	*Bacillus spizizenii* (Previously *Bacillus subtilis* subsp. *spizizenii*)	**NBRC 13722**	ATCC19659	Spore	2 Years
418228	*Burkholderia cepacia*	**NCTC 10743**	ATCC25416, DSM7288, CIP80.24	Cell	2 Years
56145	*Candida albicans*	**NCPF 3179**	ATCC10231, CIP48.72, NBRC1594, WDCM00054	Cell	2 Years
56146	*Escherichia coli*	**NCTC 12923**	ATCC8739, NCIMB8545, CIP53.126, NBRC3972, WDCM00012	Cell	2 Years
56147	*Pseudomonas paraeruginosa* (Previously *Pseudomonas aeruginosa*)	**NCTC 12924**	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026	Cell	2 Years
56148	*Staphylococcus aureus*	**NCTC 10788**	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032	Cell	2 Years
56021	Re-Hydration Fluid	N/A	N/A	N/A	5 Years

BIOBALL® Highdose 10K

HighDose 10K - mean of between 8,000 and 12,000 cfu
with a standard deviation of ≤ 15% of the mean.

Reference 20 vials	Reference 10 vials	Organism	BIOBALL Strain	Corresponding Strains	Cell Type	Shelf life from date of manufacture^
56049	**413776**	*Aspergillus brasiliensis*	**NCPF 2275**	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053	Spore	2 Years
56143	**413777**	*Bacillus spizizenii* (Previously *Bacillus subtilis* subsp. *spizizenii*)	**NCTC 10400**	ATCC6633, CIP52.62, NCIMB8054, NBRC3134	Spore	2 Years
56050	**413778**	*Candida albicans*	**NCPF 3179**	ATCC10231, CIP48.72, NBRC1594, WDCM00054	Cell	2 Years
56051	**N/A**	*Clostridium perfringens*	**NCTC 8798**	CIP106157	Spore	2 Years
56052	**N/A**	*Klebsiella aerogenes* (Previously *Enterobacter aerogenes*)	**NCTC 10006**	ATCC13048, DSM30053, CDC819-56	Cell	2 Years
56053	**56160**	*Escherichia coli*	**NCTC 9001**	ATCC11775, DSM30083, CIP54.8, WDCM00090	Cell	2 Years
56054	**N/A**	*Lactobacillus fermentum*#	**NCIMB 6991**	ATCC 9338	Cell	2 Years
56144	**413831**	*Pseudomonas paraeruginosa* (Previously *Pseudomonas aeruginosa*)	**NCTC 12924**	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026	Cell	2 Years
56055	**56159**	*Staphylococcus aureus*	**NCTC 10788**	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032	Cell	2 Years

^All BIOBALL strains and Re-Hydration Fluid products are shipped with a minimum of 6 months shelf life remaining.
#Mean of between 7,000 and 13,000 with a standard deviation of ≤ 20% of the mean.
Strains sourced from NCTC, NCPF, NCIMB, IMVS, NBRC, DSMZ and CICC. NCTC and NCPF are a trademark of the UK Health Security Agency.
ATCC is a registered trademark of American Type Culture Collection.

NCTC National Collection of Type Cultures NCPF National Collection of Pathogenic Fungi

BIOBALL® Mixed Kit Configurations

BIOBALL® Mixed kit for Growth Promotion Testing (GPT)

SingleShot mixed kit - Reference: 412541
MultiShot 550 mixed kit - Reference: 412540

Quantity of vials	Organism	BIOBALL strain	Corresponding Strains
2	*Aspergillus brasiliensis*	NCPF 2275	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053
2	*Bacillus spizizenii* (Previously *Bacillus subtilis* subsp. *spizizenii*)	NCTC 10400	ATCC6633, CIP52.62, NCIMB8054, NBRC3134
2	*Candida albicans*	NCPF 3179	ATCC10231, CIP48.72, NBRC1594, WDCM00054
2	*Escherichia coli*	NCTC 12923	ATCC8739, NCIMB8545, CIP53.126, NBRC3972, WDCM00012
2	*Pseudomonas paraeruginosa* (Previously *Pseudomonas aeruginosa*)	NCTC 12924	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026
2	*Staphylococcus aureus*	NCTC 10788	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032

BIOBALL® Mixed kit for Sterility Assurance Testing

SingleShot mixed kit - Reference: 412646
MultiShot 550 mixed kit - Reference: 412647

Quantity of vials	Organism	BIOBALL strain	Corresponding Strains
2	*Aspergillus brasiliensis*	NCPF 2275	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053
2	*Bacillus spizizenii* (Previously *Bacillus subtilis* subsp. *spizizenii*)	NCTC 10400	ATCC6633, CIP52.62, NCIMB8054, NBRC3134
2	*Candida albicans*	NCPF 3179	ATCC10231, CIP48.72, NBRC1594, WDCM00054
2	*Clostridium sporogenes*	NCTC 12935	ATCC11437, NBRC14293, NCIMB12343, CIP100651, DSM1446
2	*Pseudomonas paraeruginosa* (Previously *Pseudomonas aeruginosa*)	NCTC 12924	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026
2	*Staphylococcus aureus*	NCTC 10788	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032

BIOBALL® Mixed kit for Antimicrobial Effectiveness Testing

MultiShot 10E8 mixed kit - Reference: 56150

Quantity of vials	Organism	BIOBALL strain	Corresponding Strains
2	*Aspergillus brasiliensis*	NCPF 2275	ATCC16404, CIP1431.83, IMI149007, NBRC9455, WDCM00053
2	*Candida albicans*	NCPF 3179	ATCC10231, CIP48.72, NBRC1594, WDCM00054
2	*Escherichia coli*	NCTC 12923	ATCC8739, NCIMB8545, CIP53.126, NBRC3972, WDCM00012
2	*Pseudomonas paraeruginosa* (Previously *Pseudomonas aeruginosa*)	NCTC 12924	ATCC9027, NCIMB8626, CIP82.118, NBRC13275, WDCM00026
2	*Staphylococcus aureus*	NCTC 10788	ATCC6538, CIP4.83, NCIMB9518, NBRC13276, FDA209, WDCM00032

BIOBALL® Luminate 2.0

Reference 100 CFU/10 vials	Organism	BIOBALL Strain (derived from)	WDCM	Corresponding Strains	Cell Type	Shelf life from date of manufacture^
423938	*Salmonella* Typhimurium	**NCTC 12023**	00031	ATCC 14028, BCRC 10747, CCM 7205, CCRC 10747, CDC 6516-60, CECT 4594, CGMCC 1.1859, CIP 104115, DSM 19587, LMG 14933, NBIMCC 3669, NCIMB 13284	Cell	2 Years
423939	*Escherichia coli* O157:H7 (non-toxigenic strain, *stx* negative)	**NCTC 12900**	00014	ATCC 700728, BDMS T4169, CCM 4787, CECT 4972, CICC 10907, CIP 110281, LMG 21756, NCIMB (QC) 50139	Cell	2 Years
423940	*Cronobacter sakazakii*	**NCTC 11467**	00214	ATCC 29544, CECT 858, CIP 103183, DSM 4485	Cell	2 Years
423941	*Listeria monocytogenes* 4b	**NCTC 10527**	00021	ATCC 13932, CECT 935, CIP 59.53, DSM 27575, LMG 21264	Cell	2 Years
423942	*Listeria innocua*	**NCTC 11288**	00017	ATCC33090, CECT 910, CIP 80.11, DSM20649, LMG 11387	Cell	2 Years

BIOBALL Luminate 2.0 is a Genetically Modified Microorganism (GMM) and may need special regulatory requirements for use in your region. Please check with your local bioMérieux representative if this product is available in your region.
BIOBALL Luminate 2.0 is now a “Certified Reference Material”.

NCTC National Collection of Type Cultures
NCPF National Collection of Pathogenic Fungi

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