



Cell Sorting Using BioMag® anti-Human Leukocyte Particles

DESCRIPTION

BioMag® anti-Human Leukocyte Particles are produced to provide optimal cell sorting results proven by flow cytometry. The table below can be used as a quick reference and general guideline for starting bead to cell ratios for different types of target cells. The data presented below are results obtained with BioMag® in positive selection experiments using whole blood or purified leukocyte preps. Typically, cells and particles were mixed and incubated approximately 30 minutes at room temperature. The mixture was then magnetically separated, the supernatant incubated with the appropriate two-color antibody cocktail, and analyzed by flow cytometry.

It should be noted that one magnetic cell sorting protocol may not be applicable for all cell separations. Due to differences in the distribution of cell types in samples and other variables, researchers are strongly

encouraged to determine the optimal particle to cell ratio for their experiments. The best way to start is by following the general guidelines offered here, while referring to published protocols. Each lab should then optimize incubation times, particle to cell ratios, etc. to achieve the desired results. Each product is supplied in a 1x phosphate buffered saline containing 1.0% BSA, EDTA (40 mg/L), and 0.1% sodium azide.

STORAGE AND STABILITY

Store at 2-8°C. Freezing, drying, or centrifuging BioMag® may result in irreversible aggregation and loss of binding activity. Washing BioMag® anti-Human particles in sterile media to remove preservative prior to use is recommended. Using a magnetic separation unit for washing instead of centrifugation is also strongly recommended.

Particle I.D.	Catalog Code	PDS Number	Particles/mL	Volume Used (mL)	# Particles per test	# Target Cells per test	Bead:Target ratio	% Depletion
CD2	BM595	595	4.00 x 10 ⁸	0.05	2.00 x 10 ⁷	7.32 x 10 ⁵	27.0	94.00%
CD4	BM581	581	1.40 x 10 ⁸	0.018	2.52 x 10 ⁶	6.77 x 10 ⁵	3.7	99.44%
CD8	BM583	583	1.40 x 10 ⁸	0.010	1.40 x 10 ⁶	2.73 x 10 ⁵	5.1	98.24%
CD11b	BM596	596	1.00 x 10 ⁸	0.05	5.50 x 10 ⁶	1.73 x 10 ⁵	1.5	82.70%
CD14	BM584	584	1.40 x 10 ⁸	0.070	9.80 x 10 ⁶	2.93 x 10 ⁵	33.5	96.90%
CD19	BM586	586	4.00 x 10 ⁸	0.0125	5.00 x 10 ⁶	1.35 x 10 ⁵	37.0	99.22%
CD56	BM589	589	4.00 x 10 ⁸	0.10	4.00 x 10 ⁷	4.00 x 10 ⁵	100.0	76.70%
CD34	BM587	587	4.00 x 10 ⁸	0.05	2.00 x 10 ⁷	1.0 x 10 ⁵	200.0	Lymphocyte Gate 73.20%
CD34	BM587	587	4.00 x 10 ⁸	0.05	2.00 x 10 ⁷	5.0 x 10 ⁵	400.0	Monocyte Gate 50.00%
CD45	BM588	588	4.00 x 10 ⁸	0.20	8.00 x 10 ⁵	1.72 x 10 ⁶	46.5	Lymphocyte Gate 97.36%
CD45 & CD16	BM588	588	4.00 x 10 ⁸	0.10	4.00 x 10 ⁵	1.72 x 10 ⁶	23.3	96.73%
CD45	BM588	588	4.00 x 10 ⁸	0.50	2.00 x 10 ⁵	5.05 x 10 ⁵	39.6	Monocyte Gate 98.42%
CD45 & CD16	BM588	588	4.00 x 10 ⁸	0.50	2.00 x 10 ⁵	5.05 x 10 ⁵	39.6	99.29%
CD45	BM588	588	4.00 x 10 ⁸	0.20	8.00 x 10 ⁵	2.28 x 10 ⁶	35.1	Granulocyte Gate 46.33%
CD45 & CD16	BM588	588	4.00 x 10 ⁸	0.05	2.00 x 10 ⁵	2.28 x 10 ⁶	8.8	95.24%
CD71	BM590	590	4.00 x 10 ⁸	0.025	8.00 x 10 ⁵	1.00 x 10 ⁵	21.3	Lymphocyte Gate 97.43%
CD71	BM590	590	4.00 x 10 ⁸	0.025	1.00 x 10 ⁵	1.87 x 10 ⁵	53.4	Monocyte Gate 97.27%
CD71	BM590	590	4.00 x 10 ⁸	0.050	2.00 x 10 ⁵	2.92 x 10 ⁶	6.8	Granulocyte Gate 96.52%

SAFETY

This particle suspension contains sodium azide. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Upon disposal of material, flush with a large volume of water to prevent azide accumulation. Please consult the Safety Data Sheet for more information.

These products are for research use only and are not intended for use in humans or for *in vitro* diagnostic use.

ORDERING INFORMATION

Cat. Code	Description	Size
BM595	BioMag® anti-Human CD2	5mL
BM581	BioMag® anti-Human CD4	5mL
BM583	BioMag® anti-Human CD8	5mL
BM596	BioMag® anti-Human CD11b	5mL
BM584	BioMag® anti-Human CD14	5mL
BM586	BioMag® anti-Human CD19	5mL
BM587	BioMag® anti-Human CD34	5mL
BM588	BioMag® anti-Human CD45	5mL
BM589	BioMag® anti-Human CD56	5mL
BM590	BioMag® anti-Human CD71	5mL

Order online anytime at www.bangslabs.com.