BD APC-H7 Conjugated Antibody Reagents The most stable APC-cyanine tandem conjugates

Features

Offers greater stability in ambient light and reduced spillover, making it easier to handle and ensuring reliable results.

Supports a range of applications including many important human and mouse cell surface markers such as CD4 and CD8.

Also available as part of the BD Biosciences Custom Conjugate program to meet your application needs. BD[™] APC-H7 from BD Biosciences offers a new level of stability, making it easier to achieve reliable results across a broad range of multicolor flow cytometry applications.

More reliable and reproducible staining patterns from the most stable APC-cyanine tandem dye on the market

BD[™] APC-H7, a new APC-cyanine tandem dye, gives researchers more reliable and reproducible staining patterns from this family of dyes. Until now, emission at the donor fluorochrome wavelength, caused by dye degradation and spillover, has been a challenge in the use of tandem dyes such as APC-cyanine dyes.

BD APC-H7 is engineered to minimize spillover to the APC channel. In addition, the new BD APC-H7 is more stable and less affected by light, temperature, and formaldehyde-based fixatives, compared to other APC-cyanine tandem dyes such as APC-Cy^{TM7} and APC-Alexa Fluor® 750. This reduces loss of fluorescence resonance energy transfer (FRET) between the donor and acceptor fluorophores to maintain integrity of signals from both channels.

More flexibility and greater ease of use for multicolor flow cytometry

Degradation inherent in tandem dyes leads to emission in the APC channel, which in turn leads to false positive events and reduced sensitivity. BD APC-H7 improves stability in ambient light, making it easier to handle and use. Experiments can be run outside darkroom conditions with more relaxed time constraints. Spillover is a common issue with multicolor applications, and high spillover can result in loss of resolution sensitivity. Reduced spillover in BD APC-H7 allows for greater reliability and reproducibility of results.

Conjugates of BD APC-H7 are available for many important cell surface markers such as CD3, CD4, CD8, CD14, CD19, CD20, CD45, and anti-HLA–DR, allowing BD APC-H7 to be used for a range of applications. This degree of choice, coupled with increased stability, enables greater flexibility in multicolor experiment design.



BD APC-H7 demonstrated stability and reduced spillover. The experiments shown here compare the stability, as measured by % spillover, of whole blood stained with BD APC-H7 and APC-Alexa Fluor® 750 conjugated antibodies. Stained samples were stored in 1% PFA at room temperature under ambient light.



BD APC-H7 Monoclonal Antibodies

BD APC-H7 conjugated monoclonal antibody reagents

BD APC-H7 is a tandem conjugate and an analog of APC-Cy7 with the same spectral properties. It is engineered for greater stability and less spillover in the APC channel. It has an absorption maximum of approximately 650 nm. When excited by light from a red laser, the APC fluorochrome can transfer energy to the cyanine dye, which then emits at a longer wavelength. The resulting fluorescent emission maximum is approximately 767 nm.



BD APC-H7 vs. APC-Cy7: Comparison of staining stability (in BD Stabilizing Fixative, under light at RT). Whole blood stained with CD4 APC-H7, CD8 APC-H7, CD4 APC-Cy7, or CD8 APC-Cy7. Stained samples were stored in BD Stabilizing Fixative at room temperature under ambient light for 48 hours.



BD APC-H7 vs. APC-Cy7: Comparison of staining stability (in 1% PFA, under light at RT). Whole blood stained with CD4 APC-H7, CD8 APC-H7, CD4 APC-Cy7, or CD8 APC-Cy7. Stained samples were stored in 1% PFA at room temperature under ambient light for 48 hours.

BD Pharmingen[™] RUO Reagents

Description	React	Clone	Reg	Size	Cat. No.
CD3	Hu	SK7	RUO	25 tests	560275*
CD3	Hu	SK7	RUO	100 tests	560176
CD4	Hu	RPA-T4	RUO	25 tests	560251*
CD4	Hu	RPA-T4	RUO	100 tests	560158
CD8	Hu	SK1	RUO	25 tests	560273*
CD8	Hu	SK1	RUO	100 tests	560179
CD14	Hu	ΜφΡ9	RUO	25 tests	560270*
CD14	Hu	ΜφΡ9	RUO	100 tests	560180
CD16	Hu	3G8	RUO	25 tests	560248*
CD16	Hu	3G8	RUO	100 tests	560195
CD19	Hu	SJ25C1	RUO	25 tests	560252*
CD19	Hu	SJ25C1	RUO	100 tests	560177
CD25	Hu	M-A251	RUO	25 tests	560244*
CD25	Hu	M-A251	RUO	100 tests	560225
CD27	Hu	M-T271	RUO	25 tests	560223*
CD27	Hu	M-T271	RUO	100 tests	560222
CD45	Hu	2D1	RUO	25 tests	560274*
CD45	Hu	2D1	RUO	100 tests	560178
Mouse IgG _{2b} , κ		27-35	RUO	0.1 mg	560183
Mouse IgG ₁ , κ		MOPC-21	RUO	0.1 mg	560167
CD4	Ms	GK1.5	RUO	25 µg	560246*
CD4	Ms	GK1.5	RUO	0.1 mg	560181
CD8A	Ms	53-6.7	RUO	25 µg	560247*
CD8A	Ms	53-6.7	RUO	0.1 mg	560182
CD19	Ms	1D3	RUO	25 µg	560245*
CD19	Ms	1D3	RUO	0.1 mg	560143
CD117 (c-Kit)	Ms	2B8	RUO	25 µg	560250*
CD117 (c-Kit)	Ms	2B8	RUO	0.1 mg	560185
Rat IgG ₁ , λ		A110-1	RUO	0.1 mg	560196
Rat IgG _{2a} , ĸ		R35-95	RUO	0.1 mg	560197
Rat IgG _{2b} , κ		A95-1	RUO	0.1 mg	560200

RUO (GMP) Reagents

Description	React	Clone	Reg	Size	Cat. No.
Anti-HLA-DR	Hu	L243	RUO (GMP)	100 tests	641393
CD3	Hu	SK7	RUO (GMP)	100 tests	641397
CD4	Hu	SK3	RUO (GMP)	100 tests	641398
CD8	Hu	SK1	RUO (GMP)	100 tests	641400
CD14	Hu	ΜφΡ9	RUO (GMP)	100 tests	641394
CD19	Hu	SJ25C1	RUO (GMP)	100 tests	641395
CD20	Hu	L27	RUO (GMP)	100 tests	641396
CD45	Hu	2D1	RUO (GMP)	100 tests	641399
Mouse IgG ₁		X40	RUO (GMP)	100 tests	641401

* Introductory trial sizes available for limited time.

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