ExoBrite™ EV Surface Stain Sampler Kit, Green

Kit includes each of ExoBrite™ 490/515 EV Surface Stains (CTB, WGA, and Annexin V) for assessing which stain offers the best coverage for EV samples of interest.

Product attributes

Dye	ExoBrite™ 490/515
Colors	Green

Product Description

The ExoBrite™ EV Surface Stain Sampler Kit, Green was developed to offer each of Biotium's ExoBrite™ EV Surface Stains (CTB, WGA, and Annexin V) for assessing which stain offers the best coverage for the EV samples of interest.

Bright & Specific EV Staining with Minimal Aggregation

ExoBrite™ EV Surface Stains are conjugates of probes for labeling EV membrane surface targets using Biotium's unique fluorescent dyes for superior brightness and specificity. The stains were designed to overcome some of the challenges of EV detection, particularly in flow cytometry. For example, some lipophilic membrane dyes used to stain EVs can form aggregates of a similar size as exosomes or EVs, thus confounding analysis. ExoBrite™ EV stains have been formulated for bright and specific staining of EV surface targets with minimal aggregation in flow cytometry. In addition, ExoBrite™ EV Stains do not bind non-specifically to polystyrene beads, and therefore unlike hydrophobic membrane dyes, they can be used to stain bead-bound EVs.

A Convenient Sampler Kit for Comparing Samples

A major issue for EV detection includes varying signal and coverage using tetraspanin antibody staining of EVs isolated from different cell types or biological fluids. The ExoBrite™ EV Surface Stain Sampler Kit, Green includes each of Biotium's ExoBrite™ EV Surface Stains (CTB, WGA, and Annexin V) to allow users to assess which stain(s) offer the best coverage for their EV samples. ExoBrite™ CTB EV Stains are conjugates of cholera toxin subunit B (CTB), which binds to GM1 gangliosides that are found on the surface of mammalian lipid rafts and some EV populations. ExoBrite™ WGA EV Stains are uniquely formulated conjugates of wheat germ agglutinin (WGA), a carbohydrate-binding lectin with high affinity for N-acetylglucosamine moieties of glycoproteins frequently exposed on EV membranes. ExoBrite™ Annexin V EV Stains is a calcium-dependent phospholipid-binding protein with high affinity for phosphatidyleserine (PS), which is exposed on the surface of apoptotic cells and also used as a marker for EV from a variety of sources.

EVs are often labeled with fluorescent antibodies targeting one or more of the tetraspanin proteins CD9, CD63, and CD81. ExoBrite™ EV Stains can be combined with antibody staining, for multi-parameter analysis. Biotium offers a selection of fluorescent ExoBrite™ Flow Antibodies against CD9, CD63, and CD81 that are optimized for detection of free or bead-bound EVs by flow cytometry.

Notes:

1. ExoBrite™ EV Stains have been found to label EVs derived from several tested cell lines (see Validated EV Sources below), but may not stain EVs from every source.
2. In our testing, we have found that ExoBrite™ 490/515 dye may bind to streptavidin coated surfaces or beads if free biotin binding sites are not blocked. We recommend performing a biotin blocking step after binding your biotinylated capture antibody to streptavidin beads or surfaces when using ExoBrite™ 490/515 conjugates. Alternatively, consider using a different ExoBrite™ dye for staining EVs captured on streptavidin beads or surfaces.

Validated EV Sources for ExoBrite™ EV Surface Stains

EV Source	ExoBrite™ True EV Membrane Stains	ExoBrite™ CTB Stains	ExoBrite™ WGA Stains	ExoBrite™ Annexin Stains
A549 cells	Yes	Yes	Yes	Yes
CHO cells	Yes	No	Yes	Yes
hASC (human adipose stem cells)	ND	No[1]	ND	ND
HEK293T cells	ND	Yes[1]	ND	ND
HeLa cells	Yes	No	Yes	Yes
HUVEC (human umbilical vein endothelial cells)	ND	No[1]	ND	ND
J774 cells	Yes	Yes	Yes	Yes
Jurkat cells	Yes	Yes	Yes	Yes
MCF-7 cells	Yes	Yes	Yes	Yes
Plasma	ND	No	ND	Yes
Raji cells	ND	Yes	Yes	Yes
RAW 264.7	Yes	ND	ND	ND
Serum	ND	No	ND	Yes
Skeletal myoblasts	ND	Yes[1]	ND	ND
THP-1	Yes	ND	ND	ND
U2OS cells	Yes	No	Yes	Yes
U937 cells	Yes	No	Yes	Yes
NIH3T3 cells	Yes	ND	ND	ND
HepG2 cells	ND	ND	Yes	ND
Yeast (S. cerevisiae)	Yes	No	Yes	Yes

[1]Customer-reported data
Value of "Yes" or "No" indicates coverage of EVs based on Biotium's internal data or customer-reported data. Value of "ND" indicates no data.

Biotium also offers other validated ExoBrite™ reagents for flow cytometry, western blotting, or super-resolution imaging.

Learn about Biotium's new ExoBrite™ True EV Membrane Stains. These genuine lipophilic membrane dyes are designed for superior pan-EV labeling over other membrane dyes including PKH, DiO, DiI, and DiD. Biotium also offers ExoBrite™ Antibody Conjugates for optimal detection of CD9, CD63, and CD81 EV markers by flow cytometry and western blotting. For super-resolution imaging by STORM, learn about our ExoBrite™ STORM CTB EV Staining Kits available in four CF® Dyes validated for STORM.

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Product link: https://biotium-woo.supremeclients.com/product/exobrite-ev-surface-stain-sampler-kit-green/