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Data sheet
BRIGHT-DTECH™

Kit description

This kit is based on our lanthanide nanoparticles technology which offers outstanding performances in a wide range of fluorescent analysis applications (immunoassay, lateral flow, dot blot, cell imaging, flow cytometry). Bright-Dtech™ is intended for use as a reagent to detect biotin in various types of assays. The label, Tb or Eu, is measured using Time-Resolved Fluorescence (TRF). Ex/Em maxima (nm): see table page 2

Supplied reagents and storage:

Bright-Dtech™ ($1x10^{-8}$ M)	Store at 2-8°C
Dilution buffer **Blocking buffer**	Store at 2-8°C

Materials and equipment required (not included)

- Glass tubes with cap or low protein binding tubes
- Precision micropipettes with disposable tips
- Ultrasonic bath or vortex
- TRF compatible reader

Recommended working solution preparation

The working solution must be prepared freshly before each utilization.

3. Resuspend the Bright-Dtech™ by mixing the tube well by sonicating (recommended) or by vigorous vortexing.
4. In a glass tube or in a low protein binding tube, dilute Bright-Dtech™ in Dilution buffer. Consult the table below for our suggested concentrations:

Application	Bright-Dtech concentration*	Dilution factor
FLISA/FRET	[$1x10^{-11}$ – $1x10^{-10}$ M]	1/100 – 1/10
Lateral flow	[$1x10^{-11}$ – $1x10^{-9}$ M]	1/100 – 1/10
Dot-Blot	[$1x10^{-11}$ – $1x10^{-10}$ M]	1/100 – 1/10

*Reader dependent. Optimal concentrations/dilutions should be determined by the end user.

1. Close the tube tightly.
2. Sonicate at 4-15 °C (or vortex at room temperature) for 5 min.

Your Bright-Dtech™ **is ready to use** (to be used immediately after sonication/vortex).

Note: It is strongly recommended not to use PBS buffer with Bright-Dtech™.

Technical information: This method and buffers provided are intended only as a general guideline. Optimal working solution is protein-dependent; optimization techniques and buffer formulations could differ for each protein/assay.

This kit is for **Research Use Only,** not for diagnostic procedures.

TABLE 1.

NP	REFERENCE	DESCRIPTION	EX/EM*	QUANTITY (For one reference)	DILUTION BUFFER (For one reference)
TB (GREEN)	BDT545	Unconjugated BDT 545	340 / 545	250 µL	50 mL
	BDT545STRP	Streptavidin conjugated BDT 545		500 µL	50 mL
	BDT545BIO	Biotin conjugated BDT 545		1 mL	50 mL
	BDT545RAB	Goat anti-Rabbit IgG (H+L) coupled to BDT 545		1.5 mL	50 mL
	BDT545MOU	Goat anti-Mouse IgG (H+L) coupled to BDT 545		2 x 1.5 mL	2 x 50mL
	BDT545GOA	Goat anti-Mouse IgG (H+L) coupled to BDT 545		3 x 1.5 mL	3 x 50 mL
	BDT545HUM	Goat anti-Goat IgG (H+L) coupled to BDT 545		4 x 1.5 mL	4 x 50 mL
DY (YELLOW)	BDT575	Unconjugated BDT 575	340 / 575	250 µL	50 mL
	BDT575STRP	Streptavidin conjugated BDT 575		500 µL	50 mL
	BDT575BIO	Biotin conjugated BDT 575		1 mL	50 mL
	BDT575RAB	Goat anti-Rabbit IgG (H+L) coupled to BDT 575		1.5 mL	50 mL
	BDT575MOU	Goat anti-Mouse IgG (H+L) coupled to BDT 575		2 x 1.5 mL	2 x 50mL
	BDT575GOA	Goat anti-Mouse IgG (H+L) coupled to BDT 575		3 x 1.5 mL	3 x 50 mL
	BDT575HUM	Goat anti-Goat IgG (H+L) coupled to BDT 575		4 x 1.5 mL	4 x 50 mL
SM (ORANGE)	BDT600	Unconjugated BDT 600	340 / 600	250 µL	50 mL
	BDT600STRP	Streptavidin conjugated BDT 600		500 µL	50 mL
	BDT600BIO	Biotin conjugated BDT 600		1 mL	50 mL
	BDT600RAB	Goat anti-Rabbit IgG (H+L) coupled to BDT 600		1.5 mL	50 mL
	BDT600MOU	Goat anti-Mouse IgG (H+L) coupled to BDT 600		2 x 1.5 mL	2 x 50mL
	BDT600GOA	Goat anti-Mouse IgG (H+L) coupled to BDT 600		3 x 1.5 mL	3 x 50 mL
	BDT600HUM	Goat anti-Goat IgG (H+L) coupled to BDT 600		4 x 1.5 mL	4 x 50 mL
EU (RED)	BDT614	Unconjugated BDT 614	340 / 590-614-690	250 µL	50 mL
	BDT614STRP	Streptavidin conjugated BDT 614		500 µL	50 mL
	BDT614BIO	Biotin conjugated BDT 614		1 mL	50 mL
	BDT614RAB	Goat anti-Rabbit IgG (H+L) coupled to BDT 614		1.5 mL	50 mL
	BDT614MOU	Goat anti-Mouse IgG (H+L) coupled to BDT 614		2 x 1.5 mL	2 x 50mL
	BDT614GOA	Goat anti-Mouse IgG (H+L) coupled to BDT 614		3 x 1.5 mL	3 x 50 mL
	BDT614HUM	Goat anti-Goat IgG (H+L) coupled to BDT 614		4 x 1.5 mL	4 x 50 mL
ND (INFRARED)	BDT880	Unconjugated BDT 880	340 / 880	250 µL	50 mL
	BDT880STRP	Streptavidin conjugated BDT 880		500 µL	50 mL
	BDT880BIO	Biotin conjugated BDT 880		1 mL	50 mL
	BDT880RAB	Goat anti-Rabbit IgG (H+L) coupled to BDT 880		1.5 mL	50 mL
	BDT880MOU	Goat anti-Mouse IgG (H+L) coupled to BDT 880		2 x 1.5 mL	2 x 50mL
	BDT880GOA	Goat anti-Mouse IgG (H+L) coupled to BDT 880		3 x 1.5 mL	3 x 50 mL
	BDT880HUM	Goat anti-Goat IgG (H+L) coupled to BDT 880		4 x 1.5 mL	4 x 50 mL
YB (INFRARED)	BDT980	Unconjugated BDT 980	340 / 980	250 µL	50 mL
	BDT980STRP	Streptavidin conjugated BDT 980		500 µL	50 mL
	BDT980BIO	Biotin conjugated BDT 980		1 mL	50 mL
	BDT980RAB	Goat anti-Rabbit IgG (H+L) coupled to BDT 980		1.5 mL	50 mL
	BDT980MOU	Goat anti-Mouse IgG (H+L) coupled to BDT 980		2 x 1.5 mL	2 x 50mL
	BDT980GOA	Goat anti-Mouse IgG (H+L) coupled to BDT 980		3 x 1.5 mL	3 x 50 mL
	BDT980HUM	Goat anti-Goat IgG (H+L) coupled to BDT 980		4 x 1.5 mL	4 x 50 mL
NP	REFERENCE	DESCRIPTION	EX/EM*	QUANTITY (For one reference)	DILUTION BUFFER (For one reference)

*Excitation and emission maxima in nanometers