bio-techne®

Introducing

CoraFluor™ TR-FRET technology

for high performance biochemical and live cell binding assays

CoraFluor™ TR-FRET technology utilizes a terbium-based TR-FRET donor that serves as a powerful tool for detecting low to high affinity interactions between biomolecules. With a simple-to-use, high-performance and customisable homogeneous assay format, CoraFluor™ TR-FRET technology:

- eliminates any washing requirements and saves valuable lab time
- provides stable low background signal
- is amenable to miniaturization and multiplexing, making it possible to detect and analyze multiple samples simultaneously
- is brighter and more stable than existing TR-FRET donors.

CoraFluor™ 1 exhibits excitation upon exposure to a 337 nm UV laser; CoraFluor™ 2 is cell-permeable and displays a red-shifted excitation wavelength enabling live cell assays, and is excited at 365 nm and 405 nm on a wide range of analytical instruments.

Bio-Techne provides a versatile and cost-effective TR-FRET CoraFluor™ reagents toolbox that is suitable for conjugating to proteins via surface lysines and cysteines, with easy-to-follow protocols.

We also offer a substantial range of pre-conjugated CoraFluor labeled and acceptor dye-labeled antibodies, enabling you to screen the right antibody selections for your assay, without the need to conjugate - click **here** or scan the QR code to view and search products.

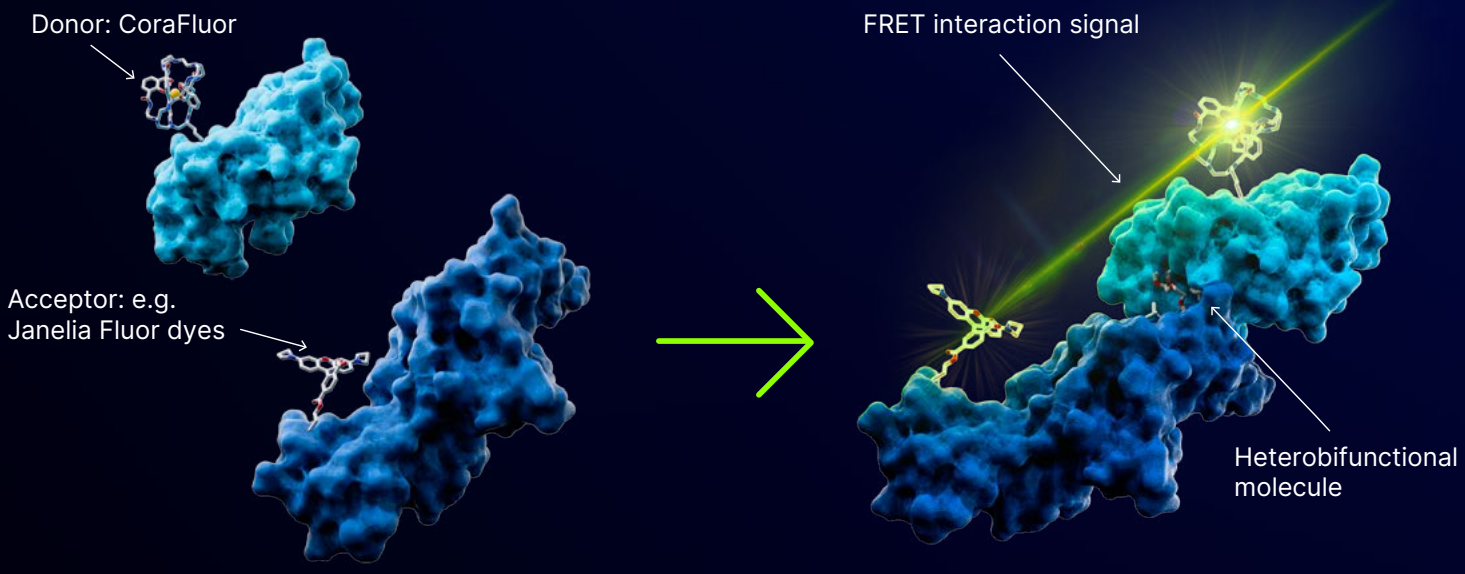

Figure 1: The donor-labeled protein of interest and acceptor-labeled protein of interest are brought into proximity by a heterobifunctional molecule (e.g. a degrader). When the donor is excited by light, energy is transferred from the donor molecule to the acceptor molecule, and the resulting fluorescence can be measured.

CoraFluor products available from Bio-Techne

Product Name	Catalog #	Description
CoraFluor™ 1, amine reactive	7920	Terbium cryptate FRET donor for TR-FRET assay development; amine reactive for conjugation
CoraFluor™ 2, amine reactive	7950	Terbium cryptate FRET donor for TR-FRET assay development; excitable by 365nm and 405nm laser; amine reactive for conjugation
CoraFluor™ 1, thiol reactive	8117	Terbium cryptate FRET donor for TR-FRET assay development; cysteine reactive for conjugation
CoraFluor™ 1, Haloalkane	8817	Cell impermeable terbium cryptate FRET donor for biochemical TR-FRET assay development, self labeling tag substrate
CoraFluor™ 2, Haloalkane	8818	Cell permeable terbium cryptate FRET donor for biochemical and live cell TR-FRET assay development, self labeling tag substrate

To view the full range of TR-FRET and FP assay reagents

Scan the QR Code or Visit:

bio-techne.com/reagents/tr-fret-and-fp-assay-reagents

Profiling HDAC1 inhibitors in lysate and live cells using cell permeable CoraFluor™ TR-FRET reagents

TR-FRET assays are traditionally best suited for high-throughput biochemical screens. However, new advances in CoraFluor technology have enabled the technique to be transferred into live cells for high-throughput cellular target engagement and protein-protein interaction assays.

The biochemical and cellular dose-dependent inhibition of HDAC1 via CoraFluor™ 2, Haloalkane labeling in HEK293T cells using various HDAC inhibitors has been demonstrated. The biochemical (left) and cellular (right) CoraFluor binding assay schematic is shown in the figure below. These results demonstrate the suitability of CoraFluor™ TR-FRET technology for live cell binding assays, and for improving the understanding of intracellular signaling pathways and biomolecular interactions.

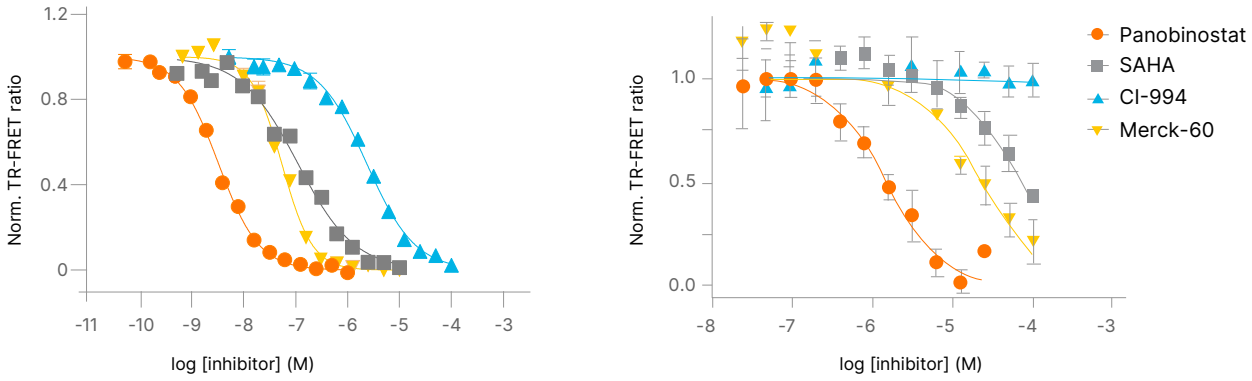

Figure 2: Biochemical (left) and cellular (right) dose-dependent inhibition of a HDAC1-dehalogenase fusion protein labeled with CoraFluor™ 2 Haloalkane in HEK293T cells by various HDAC inhibitors (treatment for 4 h at 37 °C, 1 µM SAHA-NCT). From Payne *et al.* (2021) Nat.Chem.Biol. **17** 1168