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HTRF® Terbium cryptate donor / Red acceptor readout
Setup recommendations for Tristar²S LB 942

The Tristar²S LB942 reader must be equipped with the TR-FRET reading module which includes the necessary optical components for HTRF® readout. Two sequential readings at 620nm and 665nm emission wavelengths are performed. The ratio* of the fluorescence intensities 665/620 (acceptor/donor) enables the calculation of Delta F (%) which represents the relative energy transfer rate for each sample.

The Tristar²S LB942 operating software comes with pre-set ready-to-use parameter files for HTRF® measurements including the ratio calculation. The recommended settings are defined under the TR-Fluorescence protocol as described below:

Measurement 1

Excitation filter	TRF340 (ref: 54083)
Excitation aperture	Small beam 3
Emission filter	620nm (ref: 47731/44599)
Emission aperture	11rd
Cycle time	2000 µs
Delay time	50 µs
Reading time	400 µs
Counting time	1s Optimal
Operation mode	by plate

Measurement 2

Excitation filter	TRF340 (ref: 54083)
Excitation aperture	Small beam 3
Emission filter	665nm (ref: 52544/44599)
Emission aperture	11rd
Cycle time	2000 µs
Delay time	50 µs
Reading time	400 µs
Counting time	1s Optimal
Operation mode	by plate

- **This reader only allows high performance HTRF measurement when assays are run in WHITE plates.**

**The fluorescence ratio is a correction method developed by Cisbio Bioassays with an application limited to the use of HTRF® reagents and technology, and for which Cisbio Bioassays has granted a licence to BMG LABTECH. The method is covered by the US patent 5,527,684 and its foreign equivalents.*