

HTRF® Europium cryptate donor / Red acceptor readout

Setup recommendations for Mithras² LB 943

The Mithras² LB943 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 Mithras² LB943 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 wavelength	D320 (40nm)
Emission wavelength	D620 (TRF)(10nm)
Lamp energy	100
Cycle time	2000 µs
Delay time	50 µs
Reading time	400 µs
Counting time	1s Optimal
Aperture	1
Operation mode	by plate

Measurement 2

Excitation wavelength	D320 (40)
Emission wavelength	D665 (TRF)(7.5nm)
Lamp energy	100
Cycle time	2000 µs
Delay time	50 µs
Reading time	400 µs
Counting time	1s Optimal
Aperture	1
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.*