

Thermo Electron White Clear Bottom 96 Plate

Catalog no: 8120

White Clear Bottom 96 plate + lid, tissue culture treated, sterile

- **Sterile:** ready to cultivate bacteria and fungi
- **TC treated:** perfect for mammalian tissue culture - no need for chemical treatment such as collagen coating
- **Individually packaged with lid:** prevents contamination of microplates
- **Unique design:** eliminates cross talk
- **Optimal optical clarity:** perfect for microscopic viewing, suitable for top and bottom reading instruments
- **Low background luminescence:** increased signal to noise ratio

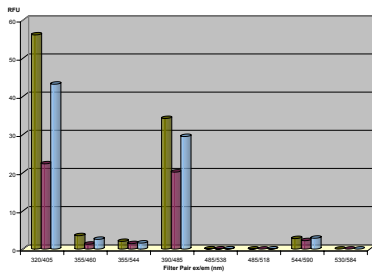


Figure 1:
Background Fluorescence for White Clear Bottom Plates

Figure 2:
Background Absorbance for White Clear Bottom Plates

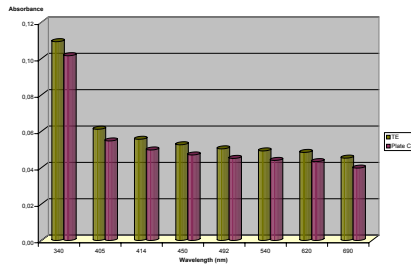


Figure 3:
Background Luminescence for White Clear Bottom Plates

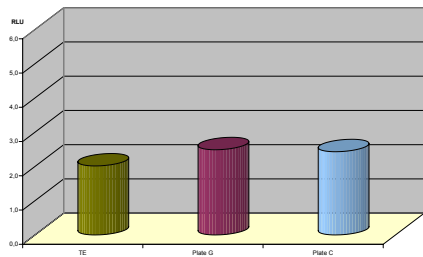


Figure 4:
Luminescence Cross Talk % for White Clear Bottom Plates During Kinetic Enzyme Reaction

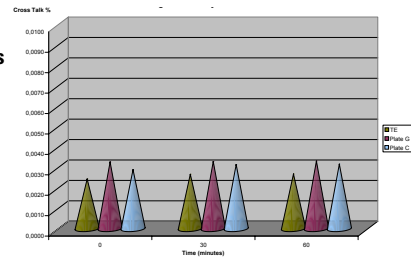
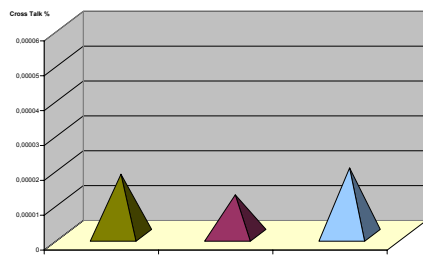


Figure 5:
Fluorometric Cross Talk % for White Clear Bottom Plates



Background Fluorescence, Absorbance and Luminescence

Background fluorescence and/or autofluorescence is a major obstacle in the development of microplate based fluorescent assays, and has several sources. Besides the sample and diluent components as well as miscellaneous contamination (dust, fingerprints etc.), plate material is a possible source of background. Thermo white clear bottom plate's background fluorescence is on a low level measured with all main filter pairs; the level is the same as that of the main competitors (Figure 1). Background absorbance is also minimal up to 405 nm thus not interfering with absorbance measurements (Figure 2). As signals in luminescent reactions often tend to be very weak, the low level of background luminescence is an important factor to be considered. Thermo white clear bottom plate has a low luminescent background the level of which equals that of the main competitors (Figure 3).

Cross Talk Properties

Cross talk is something describing whether or not a signal produced in a well of a microplate stays in that particular well without interfering with the signals of the adjacent wells. When a microplate has low cross talk, one can be sure for example there will be no false positive results because of high signals in adjacent wells. Thermo white clear bottom plate's possible luminescent cross talk has been studied utilizing a chemiluminescent substrate for Alkaline Phosphatase detection, BOLD™ APS 540 by InterGen Company. The kinetic reaction was monitored for a certain time and the cross talk values at each time point were detected. Compared to plates of other manufacturers the cross talk values seem to be lower for Thermo white clear bottom plate (Figure 4). Fluorometric cross talk has been studied using Fluorescein as fluorochrome: the values seem to be insignificant for all the plates studied (Figure 5).