

**GeneBLAzer® NTSR1 CHO-K1 DA Cells****GeneBLAzer® NTSR1-NFAT-*bla* CHO-K1 Cells**

Catalog Numbers – K1773 and K1781

**Cell Line Descriptions**

GeneBLAzer® NTSR1 CHO-K1 DA (Division Arrested) cells and GeneBLAzer® NTSR1-NFAT-*bla* CHO-K1 cells contain the human Neurotensin Receptor 1 (NTSR1), (Accession # NM\_002531) stably integrated into the CellSensor® NFAT-*bla* CHO-K1 cell line. CellSensor® NFAT-*bla* CHO-K1 cells (Cat. no. K1534) contain a beta-lactamase reporter gene under control of the NFAT. Division Arrested (DA) cells are available in an Assay Kit, which includes cells and sufficient substrate to analyze 1 x 384-well plate.

DA cells are irreversibly division arrested using a low-dose treatment of Mitomycin-C, and have no apparent toxicity or change in cellular signal transduction. Both GeneBLAzer® NTSR1 CHO-K1 DA cells and GeneBLAzer® NTSR1-NFAT-*bla* CHO-K1 cells are functionally validated for Z'-factor and EC<sub>50</sub> concentrations of Neurotensin (Figure 1).

## Validation Summary

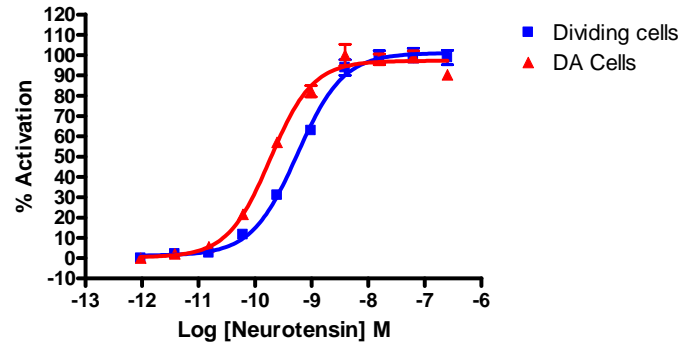
Testing and validation of this assay was evaluated in a 384-well format using LiveBLAzer™-FRET B/G Substrate.

### 1. Neurotensin dose response under optimized conditions

	<u>DA cells</u>	<u>Dividing Cells</u>
EC <sub>50</sub>	0.185 nM	0.557 nM
Z'-factor	0.81	0.67
Recommended cell no. /well	= 10,000	
Recommended Stim. Time	= 5 hrs	
Max. [Stimulation]	= 250 nM	

## Primary Agonist Dose Response

Figure 1 — GeneBLAzer® NTSR1-NFAT-*bla* CHO-K1 and GeneBLAzer® NTSR1-NFAT-*bla* CHO-K1 DA response to Neurotensin under optimized conditions



GeneBLAzer® NTSR1-NFAT-*bla* CHO-K1 (10,000 cells/well) and NTSR1-NFAT-CHO-K1 DA cells plated in a 384-well format and incubated for 16-20 hours. Cells were stimulated with a dilution series of Neurotensin (Sigma N6383) in the presence of 0.1% DMSO for 5 hours. Cells were then loaded with LiveBLAzer™-FRET B/G Substrate for 2 hours. Fluorescence emission values at 460 nm and 530 nm were obtained using a standard fluorescence plate reader and % Activation plotted for each replicate against the concentrations of Neurotensin.