
Optimization of the Tango™ CCR3-*bla* U2OS Cell Line

Tango™ CCR3-*bla* U2OS cells

Catalog Numbers – K1815

Cell Line Descriptions

Tango™ CCR3-*bla* U2OS cells contain the human Chemokine (C-C Motif) Receptor 3 (CCR3) linked to a TEV protease site and a Gal4-VP16 transcription factor stably integrated into the Tango™ GPCR-*bla* U2OS parental cell line. This parental cell line stably expresses a beta-arrestin/TEV protease fusion protein and the beta-lactamase reporter gene under the control of a UAS response element.

The Tango™ CCR3-*bla* U2OS cells have been functionally validated for Z' factor and EC₅₀ concentrations of Eotaxin (Figure 1). In addition, Tango™ CCR3-*bla* U2OS cells have been tested for assay performance under variable conditions.

Validation Summary

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

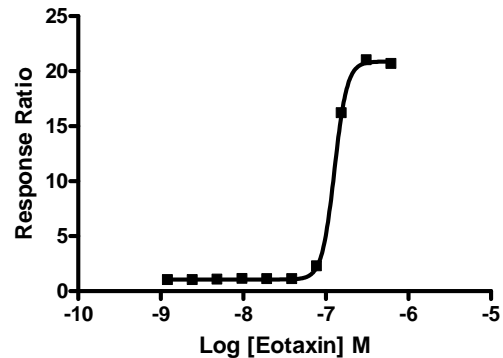
1. Eotaxin dose response under optimized conditions

	<u>Dividing Cells</u>
EC ₅₀	98.5 nM
Z'-factor	0.87
Recommended cell no. /well	= 10,000
Recommended Stim. Time	= 16 hrs
Max. [Stimulation]	= 625 nM

2. Assay performance with variable stimulation time.

Primary Agonist Dose Response

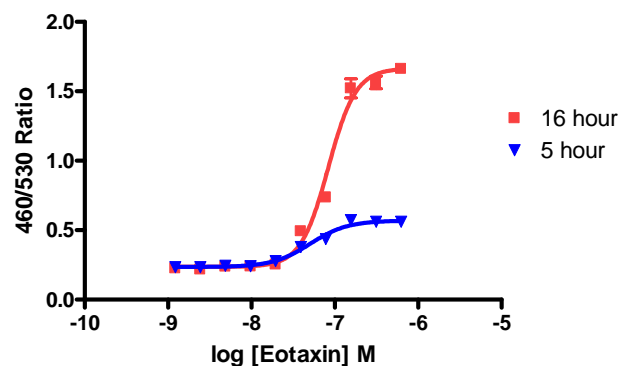
Figure 1 — Tango™ CCR3-bla U2OS cells dose response to Eotaxin under optimized conditions



Tango™ CCR3-bla U2OS cells (10,000 cells/well) were plated in a 384-well format and stimulated with a dilution series of Eotaxin (Biosource (IVGN) PHC1431) in the presence of 0.1% DMSO for 16 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 Response Ratio plotted for each replicate against the concentrations of Eotaxin.

Assay Performance with Variable Stimulation Time

Figure 2 – Tango™ CCR3-bla U2OS cells dose response to Eotaxin with 5 or 16 hour stimulation times



Tango™ CCR3-bla U2OS cells (10,000 cells/well) were plated in a 384-well assay plate and incubated 16-24 hours. Eotaxin (Biosource (IVGN) PHC1431) was either added at the time of plating (for the 16 hour assay) or was added to for 5 hours after the overnight incubation (for the 5 hour assay). The cells were then loaded for 2 hours with LiveBLAzer™-FRET B/G Substrate. Fluorescence emission values at 460 nm and 530 nm were obtained using a standard fluorescence plate reader and the blue/green ratios plotted against the indicated concentrations of Eotaxin.