

DATA SHEET

CELL LINE DESIGNATION
ORIGIN (PARENTAL CELL)
GENE INTRODUCED
RECEPTOR INTRODUCED:

Opioid Receptor, Kappa 1 cell line (CB-80300-230)
HEK 293-CNG cell (CB-80200-200)
Genbank Locus ID 4986
Human opioid receptor, kappa 1 (NCBI protein database NP_000903)

USAGE

- cAMP assay for Gi-coupled human Opioid Receptor, Kappa 1 (OPRK1).
- HEK293-CNG cells (CB-80200-200) without transfected Opioid Receptor, Kappa 1 are used as a negative control.

QUALITY CONTROL

1. This cell line has been tested negative for *Mycoplasma sp.*
2. This cell line has been tested positive for Opioid Receptor, Kappa 1 specific response.
3. Surviving rate: More than 2.5 million/vial on the second day after thawing.
4. The receptor specific activity is stable for 10 weeks continuous passage.

CELL CULTURE CONDITION

1. Growth medium: 90% DMEM, 10% FBS, 250 µg/ml G418 and 1 µg/ml puromycin
2. Freezing medium: 10% DMSO, 90% FBS

DATA EXAMPLE

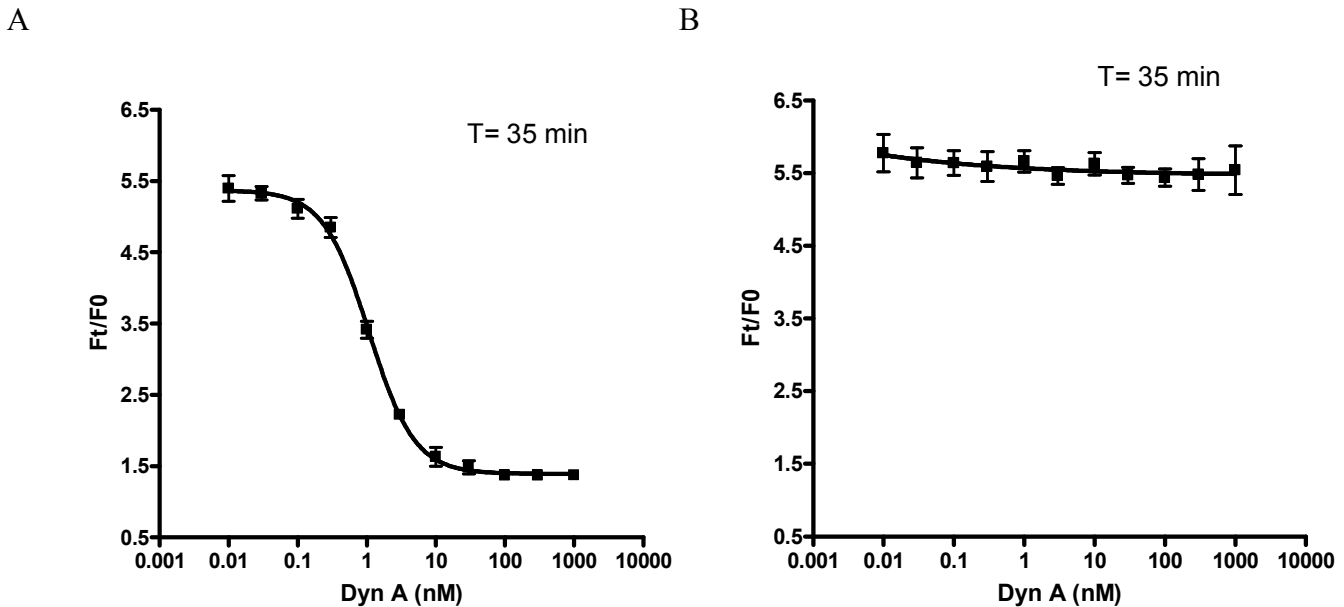


Figure 1. Response of ACTOne OPRK1 cell line & parental cell line to DYNORPHIN A.

ACTOne OPRK1 cells and parental cells (CB-80200-200) were plated overnight in 20 µl culture medium on a BD Biotec 384 well plate. The next day, cells were dye-loaded with 20 µl/well of 1X Dye-loading solution (ACTOne Membrane Potential Assay Kit). After 2 hours of incubation at room temperature, two readings were obtained prior to and 35 min after the addition of DYNORPHIN A. Ratios of the two readings (Ft/F0) are plotted in the figure.

- A. Dose response curve of DYNORPHIN A in ACTOne OPRK1 cell line. EC50 = 1.07 nM in the presence of PDE inhibitor Ro20-1724 and Adenosine A2b receptor agonist NECA.**
- B. Parental cells do not respond to DYNORPHIN A.**