

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT D2 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1336a

Lot Number: C1336a-072209

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human DRD2 cDNA (GenBank Accession Number NM_000795.3) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μ g/mL puromycin

Stability: Stable after minimum two months continuous growth.

Background: The human dopamine receptor DRD2 (D2) is a G protein-coupled receptor for dopamine. It can be found on postsynaptic dopaminergic neurons that are centrally involved in reward-mediating mesocorticolimbic pathways. Signaling through dopamine D2 receptors governs physiological functions related to locomotion, hormone production, and drug abuse.

Application: Functional assays

Figure 1

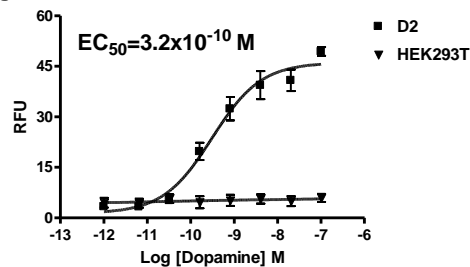


Figure 2

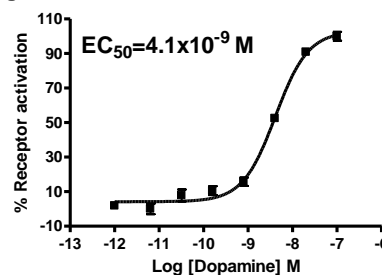


Figure 3

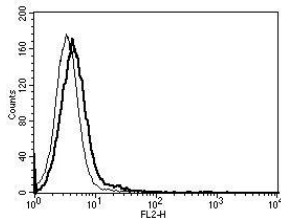


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

- Grandy *et al.* (1989) Cloning of the cDNA and gene for a human D2 dopamine receptor. *Proc Nat Acad Sci USA* 86:9762-9766.
- Neville *et al.* (2004) Identification and characterization of ANKK1: a novel kinase gene closely linked to DRD2 on chromosome band 11q23.1. *Hum Mutat* 23:540-545.
- Uziel *et al.* (2000) Distinct functions of the two isoforms of dopamine D2 receptors. *Nature* 408:199-203.

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