

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT D4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1338

Lot Number: C1338-082610

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Full-length Human DRD4 cDNA (GenBank Accession NM_000797) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable in culture for minimum of two months

Background: The human dopamine receptor D4 is a D2-like receptor that inhibits adenylyl cyclase activity and activates K⁺ channels. D4 receptor antagonists show great potential in the treatment of human personality and psychiatric disorders, such as ADHD (Attention deficit hyperactivity disorder), schizophrenia, alcoholism, and drug addiction.

Application: Functional assays

Figure 1

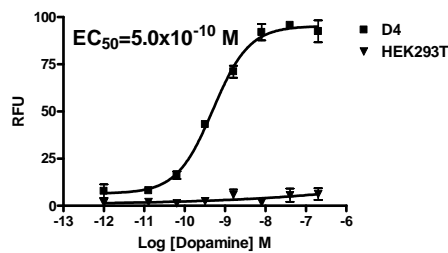


Figure 2

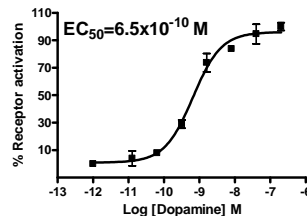


Figure 3

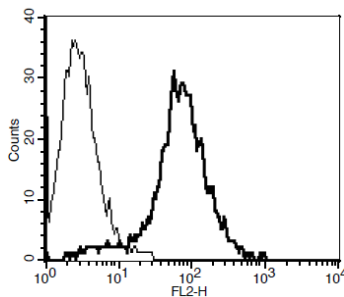


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Kulkarni SK, et al. (2000) Dopamine D4 receptors and development of newer antipsychotic drugs. *Fundam Clin Pharmacol* 14(6):529-39.

Missale C, et al. (1998) Dopamine receptors: from structure to function. *Physiol Rev* 78(1):189-225.

Van Tol HH, et al. (1991) Cloning of the gene for a human dopamine D4 receptor with high affinity for the antipsychotic clozapine. *Nature* 350(6319):610-4

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www.multispaninc.com
sales@multispaninc.com
support@multispaninc.com

Ver. October 2005

Phone: +1 (510) 887-0817
Fax: +1 (510) 887-0863
26219 Eden Landing Road
Hayward, CA 94545-3718
U.S.A.