

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT D5 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1339

Lot Number: C1339-040910

Quantity: 1 vial (2 x 10⁶) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human DRD5 cDNA (GenBank Accession Number NM_000798.3) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable in culture for minimum of two months

Background: The human dopamine receptor D5 is a D1-like receptor and its activation stimulates adenylyl cyclase activity. It has a 10-fold higher affinity for dopamine than the D1 receptor. The D5 receptor is expressed in neurons in the limbic regions of the brain, and has been implicated in ADHD and addiction disorders.

Application: Functional assays
Figure 1

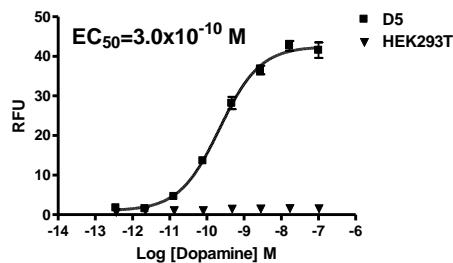


Figure 2

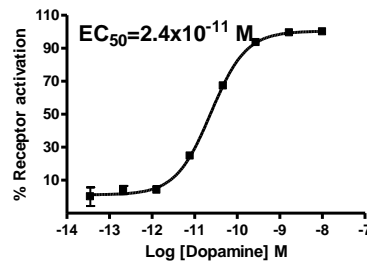


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 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.

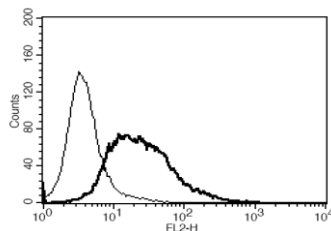
References:

Bergson *et al.* (1995) Regional, cellular, and subcellular variations in the distribution of D1 and D5 dopamine receptors in primate brain. *J Neurosci* 12:7821-7836.

Deary *et al.* (1990) Molecular cloning and expression of the gene for a human D1 dopamine receptor. *Nature* 347:72-76.

Laplante *et al.* (2004) Reduction in Acetylcholine Release in the Hippocampus of Dopamine D5 Receptor-Deficient Mice. *Neuropsychopharmacology* 29:1620-1627.

Figure 3



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