

## MULTISCREEN™ DIVISION ARRESTED CELL LINE HUMAN RECOMBINANT D5 RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** DC1339

**Lot Number:** DC1339-020318

**Quantity:** 1 vial (4 x 10<sup>6</sup>) frozen cells

**Freeze Medium:** Cellbanker 2  
(AMSBio, Cat# 11891)

**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

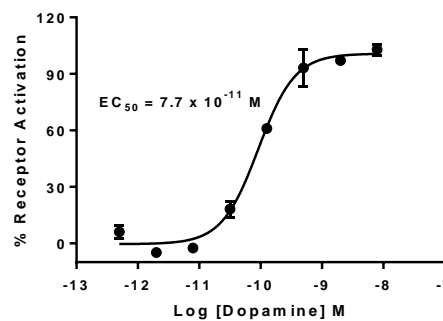
**Propagation Medium:** DMEM, 10% FBS

**Stability:** Stable for 1-2 days after thawing

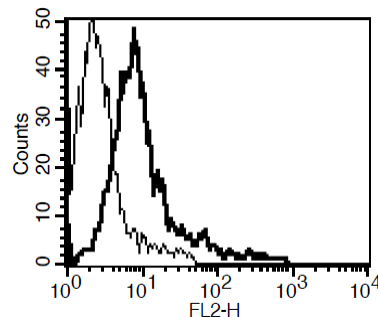
**Background:** The human dopamine receptor D5 is a D1-like receptor and its activation stimulates adenylyl cyclase activity. It has a 10-fold higher affinity for dopamine than the D1 receptor. The D5 receptor is expressed in neurons in the limbic regions of the brain, and has been implicated in ADHD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

**Application:** Functional assays

**Figure 1**



**Figure 2**



**Figure 1.** Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with cAMP 1.0 TR-FRET kit (Multispan MSCM01). **Figure 2.** 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.

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