MULTISPAN
Assay Experts in GPCRs and Beyond

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT D3 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1337

Lot Number: CG1337-052220

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

Freeze Medium: Cell Banker 2 (Amsbio 11891)

Host cell: HEK293T Gqi5

Transfection: Expression vector containing full-length human DRD3 cDNA (GenBank accession number NM_000796.3 with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 µg/mL puromycin, 250 µg/mL hygromycin

Stability: In Progress

Background: The human dopamine receptor DRD3 (D3) is a G protein-coupled receptor for dopamine. D3 receptor belongs to the D2-like family of dopamine receptors which are widely expressed in the central nervous system. D3 is involved in movement coordination, cognition, emotion, affects memory and the regulation of prolactin secretion by the pituitary. Alterations in D3 pathways can cause pathogenesis of neurological, neuropsychiatric and hormonal disorders, including Parkinson's Disease, schizophrenia and hyperprolactinemia.

Application: Functional assays

Figure 1

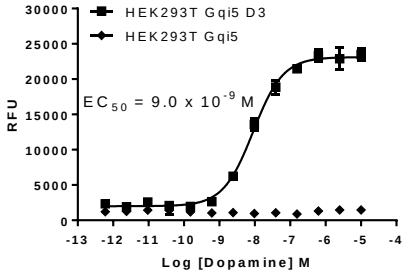

Figure 2

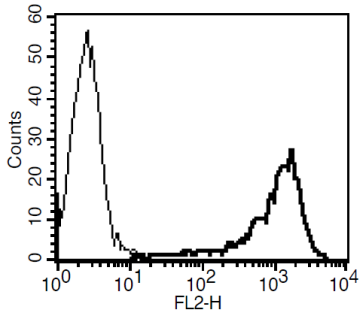

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick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

References:

Missale, C., Nash, S. R., Robinson, S. W., Jaber, M., & Caron, M. G. (1998). Dopamine receptors: from structure to function. *Physiological reviews*, *78*(1), 189-225.

Taylor, M., Grundt, P., Griffin, S. A., Newman, A. H., & Luedtke, R. R. (2010). Dopamine D3 receptor selective ligands with varying intrinsic efficacies at adenylyl cyclase inhibition and mitogenic signaling pathways. *Synapse*, *64*(3), 251-266.

FOR RESEARCH USE ONLY.

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