

MULTISCREEN™ DIVISION-ARRESTED CELL LINE HUMAN RECOMBINANT κ OPIOID RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: DC1352-1a

Lot Number: DC1352-1a-092421

Quantity: 1 vial (4 x 10⁶) frozen cells

Freeze Medium: Cellbanker 2

Host cell: CHO-K1

Transfection: Expression vector containing full-length human OPRK1 cDNA (GenBank Accession Number NM_000912.3) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS

Background: κ Opioid Receptor (KOR) is a receptor for dynorphins. KOR inhibits neurotransmitter release by reducing calcium currents and increasing potassium conductance and may play a role in arousal and regulation of autonomic and neuroendocrine functions. Some studies suggest that stimulation of KOR improves memory dysfunctions resulting from the blockade of muscarinic M1 receptors. In addition, KOR agonists attenuate several behavioral responses induced by drugs of abuse, raising the possibility that KOR agonists may be useful for the treatment of dependence on drugs of abuse.

Application: Functional assays

Figure 1:

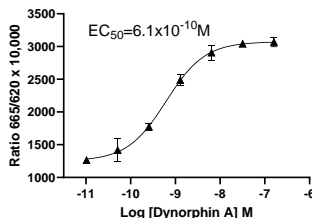


Figure 1: Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with MULTISCREEN™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01).

References:

Ukai *et al.* (1995) Kappa-Opioid receptor agonists improve pirenzepine-induced disturbance of spontaneous alternation performance in the mouse. *Eur J Pharmacol* 281:173-178.

Hasebe *et al.* (2004) Possible pharmacotherapy of the opioid kappa receptor agonist for drug dependence. *Ann N Y Acad Sci* 1025:404-413.

FOR RESEARCH USE ONLY.

All rights reserved. No part of this document may be reproduced in any form without prior permission in writing.