MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT NK1 RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1303
Lot Number: C1303-070111
Quantity: 1 vial (2 x 10^6) frozen cells
Freeze Medium: Sigma Freezing Medium (C-6164)
Host cell: HEK293T
Transfection: Expression vector containing full-length human TACR1 cDNA (GenBank Accession Number NM_001058.2) with FLAG tag sequence at N-terminus
Recommended Storage: Liquid nitrogen upon receiving
Propagation Medium: DMEM, 10% FBS, 1 μg/mL puromycin
Stability: Stable for minimum of two months in culture

Data sheet

Background: NK1 (or tachykinin receptor TACR1) is a selective receptor for substance P with relatively higher affinity for neurokinin A compared to neurokinin B (100- and 500-fold lower). Neurons in lamina I of the spinal dorsal horn express the NK1 receptor for substance P and mediate hyperalgesia, an enhanced sensitivity to painful stimuli. Although substance P does not mediate the signaling of acute pain or hyperalgesia, it is essential for the full development of stress-induced analgesia and for an aggressive response to territorial challenge. It is also suggested that substance P is important for orchestrating the response of the animal to major stressors such as pain, injury or invasion of territory. Modulation of substance P activity offers a radical new approach to the management of depression, anxiety and stress. The substance P receptor is highly expressed in areas of the brain that are implicated in these behaviors.

Application: Functional assays

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. 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:


© 2005 Multispan Inc. All rights reserved. No part of this document may be reproduced in any form without prior permission in writing.