

MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT ET_B RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1217-1

Lot Number: C1217-1-092512

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Full-length Human EDNRB cDNA (GenBank Accession Number NM_000115) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DME/F12, 10% FBS, 10 μ g/mL puromycin

Stability: In Progress

Background: Endothelin is a hormone produced predominantly by endothelial cells that have been recognized to play a significant role in the development of several cardiovascular disease states. ET_B is mainly expressed in vascular endothelial and epithelial tissues as well as by smooth muscle cells. ET_B activation of smooth muscle cells results in vasoconstriction, whereas ET_B activation on vascular endothelium causes vasodilation through the release of nitric oxide. ET_B has also been found to lower blood pressure through natriuresis and diuresis, and to release prostaglandins. In the kidney, ET_B also serves to clear endothelins from circulation by receptor-mediated endocytosis and subsequent lysosomal degradation. Mutations in the ET_B gene have been linked to Waardenburg syndrome, as well as Hirschsprung disease type 2.

Application: Functional assays

Figure 1

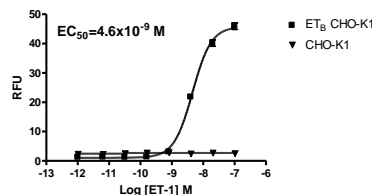


Figure 2

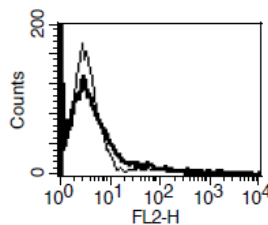


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Frommer, KW *et al.* (2008) Expression and function of ET_A and ET_B receptors in SSc. *Rheumatology* 47 (Suppl 5): v27-v28.

Sato-Jin, K *et al.* (2008) Epistatic connections between microphthalmia-associated transcription factor and endothelin signaling in Waardenburg syndrome and other pigmentary disorders. *FASEB J.* 22(4):1155-68.

Tanaka, H *et al.* (1998) Novel mutations of the endothelin B receptor gene in patients with Hirschsprung's disease and their characterization. *J. Biol. Chem.* 273(18):11378-83.

FOR RESEARCH USE ONLY.

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