

**MULTISCREEN™ STABLE CELL LINE  
MOUSE RECOMBINANT EB12 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** Cm1242-1

**Lot Number:** Cm1242-1-092413

**Quantity:** 1 vial ( $2 \times 10^6$ ) frozen cells

**Freeze Medium:** Sigma Freezing Medium (C-6164)

**Host cell:** CHO-K1

**Transfection:** Expression vector containing full-length mouse EB12 cDNA (GenBank Accession Number NM\_183031.2) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

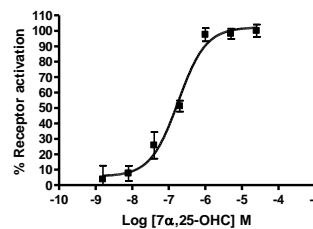
**Propagation Medium:** DMEM-F12, 10% FBS, 10  $\mu$ g/mL puromycin

**Stability:** In progress

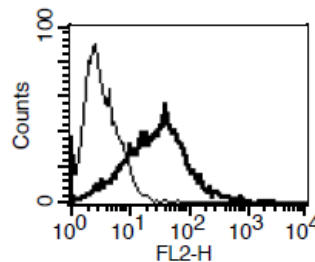
**Background:** Epstein-Barr virus-induced gene 2 (EB12, also known as GPR183) is a GPCR required for humoral immune responses and polymorphisms have been associated with inflammatory autoimmune diseases. It is expressed in B-lymphocyte cell lines as well as lymphoid tissues but not T-lymphocyte cell lines or peripheral blood T-lymphocytes.  $7\alpha,25$ -dihydroxycholesterol ( $7\alpha,25$ -OHC) and other oxysterols act as chemoattractants for immune cells expressing EB12 by directing cell migration. Mice deficient in cholesterol 25-hydroxylase (CH25H, required for generation of  $7\alpha,25$ -OHC) fail to generate EB12 biological activity in vivo and shows that the EB12-oxysterol signaling pathway plays an important role in the adaptive immune response.

**Application:** Functional assays

**Figure 1**



**Figure 2**



**Figure 1.** Dose-dependent cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay 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:**

Hannedouche *et al.* (2011) Oxysterols direct immune cell migration via EB12. *Nature* 475:524-527

Birkenbach *et al.* (1993) Epstein-Barr virus-induced genes: first lymphocyte-specific G Protein-coupled peptide receptors. *J Virol.* 67(4):2209-2220.

**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.