

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT C3A RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1222

Lot Number: C1222-062608

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human C3AR1 cDNA (GenBank Accession Number NM_004054.2) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μ g/mL puromycin

Stability: Stable after minimum of 2 months continuous growth

Data sheet

Background: C3a receptor (C3a anaphylatoxin chemotactic receptor) is a receptor for the chemotactic and inflammatory peptide anaphylatoxin C3a. The receptor is widely expressed in many hematopoietic cell lines, throughout the CNS and other tissues, and the expression level in glial cells increases during CNS inflammation. It stimulates chemotaxis, granule enzyme release and superoxide anion production, mediates the pathogenesis of demyelinating disease by directly or indirectly chemoattracting encephalitogenic cells to the CNS. Administration of small molecule inhibitors of C3a receptor inhibits airway responses.

Application: Functional assays

Figure 1

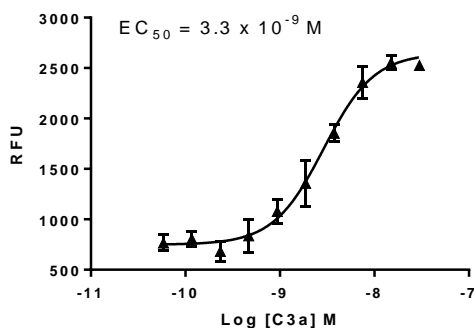


Figure 2

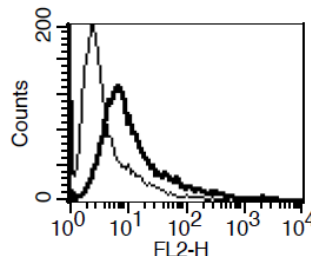


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick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

References:

Boos *et al.* (2004) Deletion of the complement anaphylatoxin C3a receptor attenuates, whereas ectopic expression of C3a in the brain exacerbates, experimental autoimmune encephalomyelitis. *J Immunol* 173:4708-14.

Ali and Panettieri, Jr. (2005) Anaphylatoxin C3a receptors in asthma. *Respir Res* 6:19.

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