

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT C5A RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1221

**Lot Number:** C1221- 111611

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

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

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length human C5aR1 cDNA (GenBank Accession Number NM\_001736) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

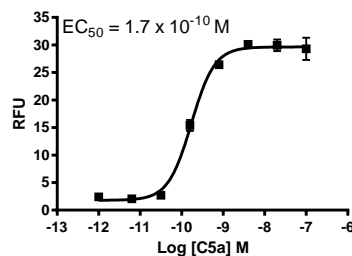
**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin

**Stability:** Stable for a minimum of 2 months in continuous culture

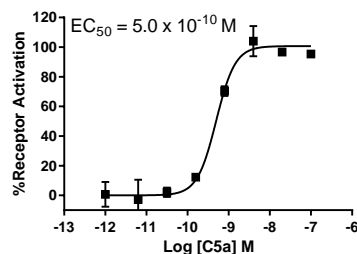
**Background:** C5a receptor (C5a anaphylatoxin chemotactic receptor, or CD88 antigen, C5R1) is a receptor for chemotactic and inflammatory peptide anaphylatoxin C5a. C5a is a classic, potent inflammatory mediator, and the C5R1 receptor stimulates chemotaxis, granule enzyme release and superoxide anion production. C5a receptor antagonists, such as AcPhe[Orn-Pro-D-cyclohexylalanine-Trp-Arg], show therapeutic effects in various inflammatory disease models. C5a receptor may also be involved in neurodegeneration and Alzheimer's disease.

**Application:** Functional assay

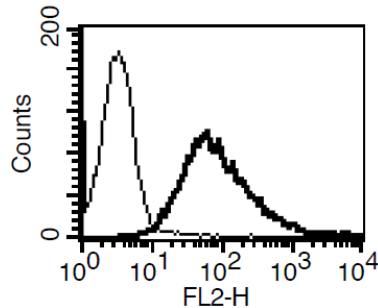
**Figure 1**



**Figure 2**



**Figure 3**



**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.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 3.** 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:**

Sumichika, H. (2004). "C5a receptor antagonists for the treatment of inflammation." *Curr Opin Investig Drugs* 5(5): 505-10. Woodruff, T. M., T. V. Arumugam, et al. (2003). "A potent human C5a receptor antagonist protects against disease pathology in a rat model of inflammatory bowel disease." *J Immunol* 171(10): 5514-20.

Farkas, I., M. Takahashi, et al. (2003). "Complement C5a receptor-mediated signaling may be involved in neurodegeneration in Alzheimer's disease." *J Immunol* 170(11): 5764-71.

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