

**MULTISCREEN™ STABLE CELL LINE  
RABBIT RECOMBINANT V1B RECEPTOR**

**PRODUCT INFORMATION**

**Catalog Number:** Cb1043L

**Lot Number:** Cb1043L-071717

**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 rabbit Avpr1b cDNA (GenBank Accession Number XM\_002717441.1) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

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

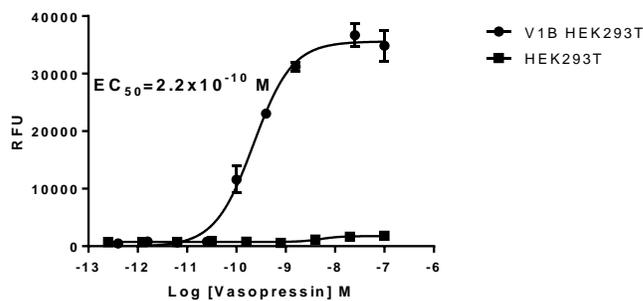
**Stability:** In Progress

**Data sheet**

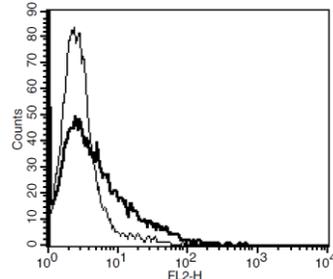
**Background:** V1B, a G protein coupled receptor, also called arginine vasopressin 1B (AVPR1B), is a receptor for neurohypophyseal peptide [Arg<sup>8</sup>]-vasopressin. V1B receptor was previously known as vasopressin 3 receptor or antidiuretic hormone receptor 1b. V1B has been shown to be expressed highly in the anterior pituitary gland, where it stimulates corticotrophin release, and also in low levels in the brain and adrenal glands. V1b receptor signals through phosphatidylinositol hydrolysis to mobilize intracellular Ca<sup>2+</sup>. A single nucleotide polymorphism in V1B receptor has been associated with susceptibility to depression in humans. Highly selective peptide and nonpeptide vasopressin receptor antagonists have been developed and pharmacological studies have provided evidence for its role in stress related behavior and disorders including anxiety disorders and depression, while deletion of the V1B gene in mice has been shown to greatly reduce aggression. In addition, knockout of V1B gene has shown reduction of vasopressin-stimulated insulin release from islet cells is mediated via V1b receptors.

**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:**

Antoni FA, Holmes MC, Makara GB, Káteszi M, László FA (1984). "Evidence that the effects of arginine-8-vasopressin (AVP) on pituitary corticotropin (ACTH) release are mediated by a novel type of receptor". *Peptides* 5 (3): 519–22.

Hernando F, Schoots O, Lolait SJ, Burbach JP (2001). "Immunohistochemical localization of the vasopressin V<sub>1b</sub> receptor in the rat brain and pituitary gland: anatomical support for its involvement in the central effects of vasopressin". *Endocrinology* 142 (4): 1659–68.

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