

## MULTISCREEN™ STABLE CELL LINE RAT RECOMBINANT TA1 RECEPTOR

### PRODUCT INFORMATION

**Catalog Number:** C1357

**Lot Number:** C1357-102610

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

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

**Host cell:** HEK293T Gaqi5

**Transfection:** Full-length rat TAR1 cDNA (GenBank Accession Number AF380186).

**Recommended Storage:** Liquid nitrogen upon receiving

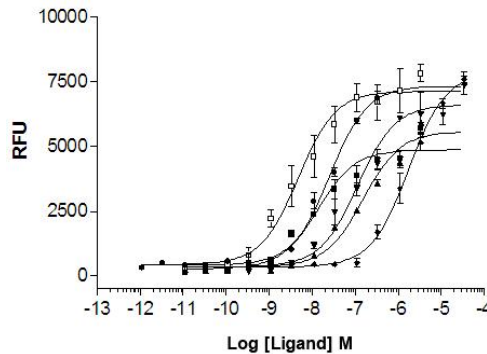
**Propagation Medium:** DMEM, 10% FBS, 100  $\mu\text{g}/\text{mL}$  hygromycin, 100  $\mu\text{g}/\text{mL}$  zeocin

**Stability:** Stable after minimum of two months continuous growth

### Data sheet

**Background:** TAR1 (Trace Amine Receptor 1) or TA1 is a receptor for trace amines. The receptor can be activated by endogenous trace amines as well as metabolites of the biogenic amine neurotransmitters. Trace amines are biogenic amines present in very low levels in mammalian tissues. Although some trace amines have clearly defined roles as neurotransmitters in invertebrates, the extent to which they function as true neurotransmitters in vertebrates has remained speculative. Trace amines are likely to be involved in a variety of physiological functions that have yet to be fully understood. Trace amine receptors are potential direct targets for drugs of abuse, including amphetamine and 3,4-methylenedioxymethamphetamine (MDMA).

**Application:** Functional assays



▪ Tyramine	$EC_{50} = 1.4 \times 10^{-8} \text{M}$
▲ Tryptamine	$EC_{50} = 1.6 \times 10^{-7} \text{M}$
▼ $\beta$ -PEA	$EC_{50} = 1.2 \times 10^{-7} \text{M}$
◆ Noradrenaline	$EC_{50} = 1.7 \times 10^{-6} \text{M}$
• Adrenaline	$EC_{50} = 2.6 \times 10^{-8} \text{M}$
◻ Isoproterenol	$EC_{50} = 4.8 \times 10^{-9} \text{M}$

**Figure legend:** Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation.

### References:

Miller *et al.* (2005) Primate trace amine receptor 1 modulation by the dopamine transporter. *J Pharmacol Exp Ther* 313:983-994.

Borowsky *et al.* (2001) Trace amines: identification of a family of mammalian G protein-coupled receptors. *Proc Natl Acad Sci USA* 98:8966-8971.

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