MULTISPAN
One-Stop Shop for GPCR Research

MULTISCREEN^{TM} MEMBRANES
HUMAN RECOMBINANT H2 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: MC1028

Lot Number: MC1028-03292012

Quantity: 1 vial (13.1mg/ml)

Host cell: HEK293T

Transfection: Expression vector containing full-length human HRH2 cDNA (GenBank accession number NM_022304.2) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen

Background: Histamine is one of the most studied biomolecules in medicine and is most notably known for its effects on smooth muscle contraction, vascular permeability and regulation of stomach acid. H_2 receptors are positively coupled to adenylate cyclase via G_s. It increases the intracellular Ca^{2+} concentrations and release Ca^{2+} from intracellular stores by coupling to G_q. H2 receptors have been found to be located in a variety of tissues, including the brain, gastric cells, and cardiac tissue. Histamine H2 receptors have a potent effect on gastric acid secretion, and the inhibition of this secretory process by H2 receptor antagonists has provided evidence for an important physiological role of histamine in the regulation of gastric secretion. It also regulates gastrointestinal motility and intestinal secretion and is thought to be involved in regulating cell growth and differentiation. It has also been demonstrated to control the relaxation of smooth muscles.

Application
Radioligand Binding Assay

Figure 1

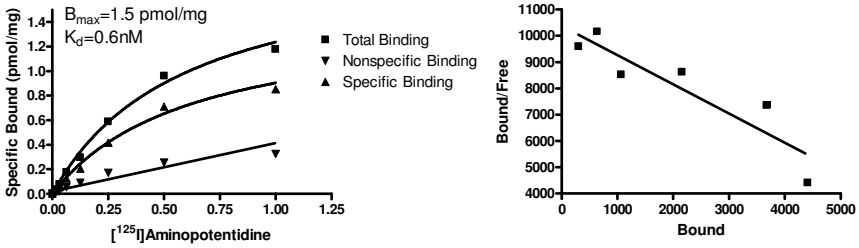

Figure 3

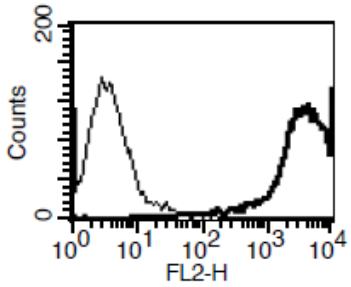

Figure 2

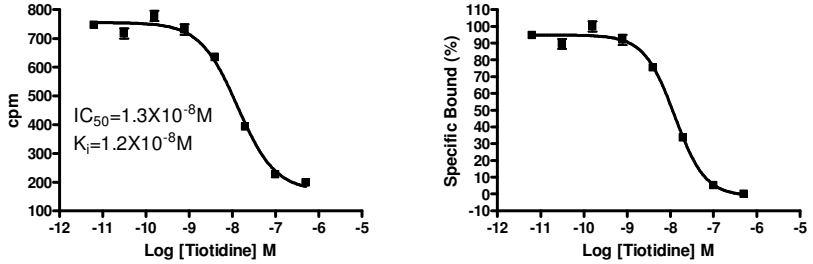

Figure 1. Saturation binding assay curve: Specific binding obtained with H2 membrane with[^{125}I]Aminopotentidine. Scatchard plot showing one binding site. **Figure 2. Competition binding assay curve:** Dose dependent competition of tiotidine for [^{125}I]Aminopotentidine 0.05nM. **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Hill, S.J. *et al.* (1997) Classification of Histamine Receptors. Pharmacological Reviews vol 49 no. 3 253-278

Martínez-Mir, M. I *et al.* (1992) Effect of histamine and histamine analogues on human isolated myometrial strips. *Br J Pharmacol*, 107: 528-531.

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Ver. October 2005

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