

human Bombesin BB₂ Receptor

Product No.: ES-582-M400UA

Lot No.: 2425436

Material Provided

Membranes: 1 x 400 units / 400 µL frozen aliquot

Product Information

Cellular Background: CHO-K1

GenBank Accession Number: M73481

Unit Size: 0.1 µg protein / unit

Storage Buffer: 50 mM Tris-HCL (pH 7.4), 0.5mM EDTA, 10mM MgCl₂, 10% sucrose.

Storage Conditions: Store at -80°C. Freeze-thaw is not recommended as it can affect product performance and homogeneity. In order to minimize negative impact of freeze-thawing, flash freeze in liquid nitrogen for 30 seconds prior to transferring to -80°C.

Stability: This product is stable for at least 3 years from reception if used and stored under recommended conditions.

Quality Control

B_{max} and K_d are determined using radioactive saturation binding assays (Figure 1). Protein concentration is determined using the BCA method (1). Ratio-to-Reference (RTR) is determined by dividing the maximal signal of the current lot (B_{max} in fmoles) by the maximal signal of a pre-defined reference tested in parallel. RTR is an indicator of lot-to-lot consistency.

Ratio-to-Reference (RTR): N/A

Expression Level (B_{max}): 31.8 pmol/mg membrane protein.

K_d for [¹²⁵I]-Gastrin Releasing Peptide: 0.01 nM

Protein Concentration: 0.1 µg/µL

(1) Smith, P.K., et al. (1985). *Anal. Biochem.* 150, 76-85.

Recommended Assay Conditions

Assay Buffer:	50 mM Tris-HCl pH 7.4, 0.3% BSA
Wash Buffer:	50 mM Tris-HCl pH 7.4
Binding Protocol:	Binding assays are performed in 200 μ L total volume according to the following conditions:
1 - Membrane dilution:	0.05 mL of membranes + 7.45 mL assay buffer (1:150 dilution)
2 - Incubation:	25 μ L of incubation buffer or GRP (human) (Bachem H-6785) 1 μ M final for non specific binding
	25 μ L of radioligand at the appropriate concentration (see graph below)
	150 μ L of diluted membranes
3 - Incubation time:	60 minutes at 27 $^{\circ}$ C
4 - Filtration:	aspirate and wash 9 x 500 μ L with ice cold wash buffer over GF/C filter (presoaked in 0.5 % PEI).

Lot Specific Data

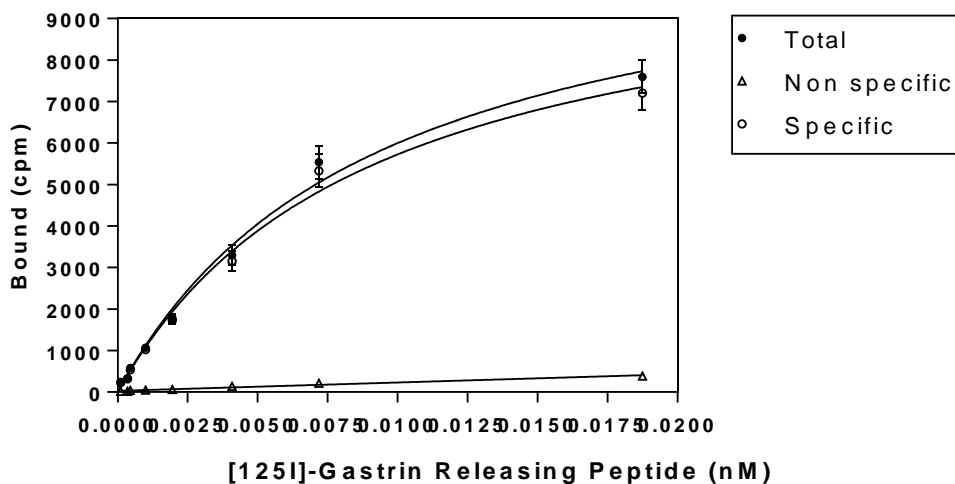


Figure 1: Saturation binding assay curve (filtration)
 96-well saturation binding assay curve (0.1 μ g membranes/well, TopCount™) using [¹²⁵I]-Gastrin Releasing Peptide (Revvity NEX421 Lot No.: LD60180)

Typical Product Data

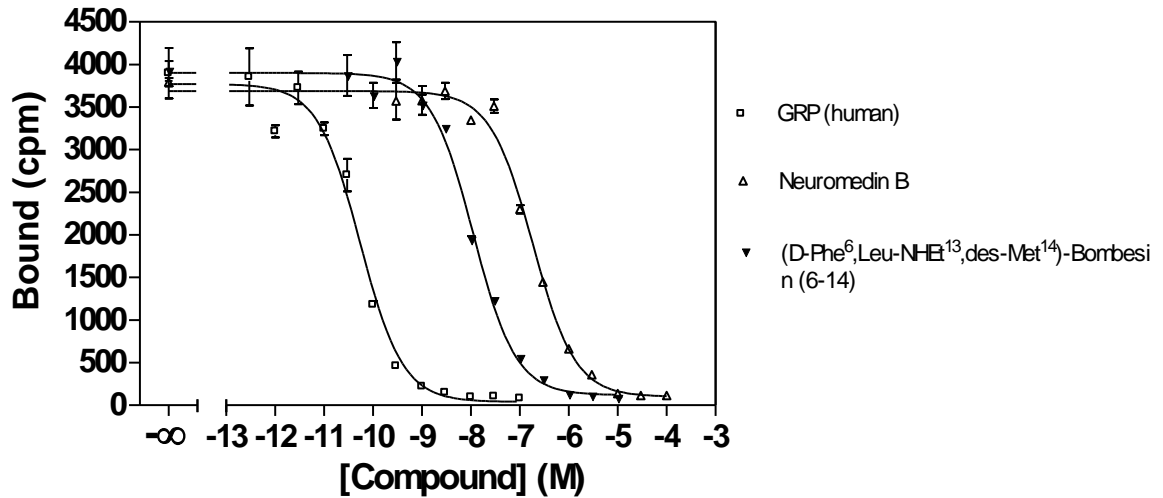


Figure 2: Competition binding assay curve (filtration)
 96-well competition binding assay curve (0.1 µg membranes/well, TopCount™). Recommended radioligand concentration = 0.02 nM.

*Even though two sites can be observed occasionally with some ligands, the data presented is derived from single site fitting.

Reference Compounds	Ki (nM)
GRP (human)	0.032
Neuromedin B	107
(D-Phe ⁶ ,Leu-NHEt ¹³ ,des-Met ¹⁴)-Bombesin (6-14)	6.6

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