

human Somatostatin sst_{2a} Receptor

Product No.: ES-521-M400UA

Lot No.: 3354684

Material Provided

Membranes: 1 x 400 units / 1000 µL frozen aliquot

Product Information

Cellular Background: CHO-K1

GenBank Accession Number: M81830

Unit Size: 25 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. *We certify that these results meet our quality release criteria.

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

Expression Level (B_{max}): 24 pmol/mg membrane protein.

K_d for [¹²⁵I]TYR¹¹-Somatostatin-14: 5.9 nM

Protein Concentration: 10 µg/µL

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

Recommended Assay Conditions

Assay Buffer:	25 mM Hepes pH 7.4, 10 mM MgCl ₂ , 1 mM CaCl ₂ , 0.5% BSA
Wash Buffer:	50 mM Tris-HCl pH 7.4, 0.2% BSA
Binding Protocol:	Binding assays are performed in 200 μ L total volume according to the following conditions:
1 - Membrane dilution:	0.125 mL of membranes + 4.875 mL assay buffer (1:40 dilution)
2 - Incubation:	50 μ L of incubation buffer or Somatostatin-28 (Bachem H-4955) 1 μ M final for non specific binding (Saturation binding assay)
	<i>For competition binding assay: 50 μL of reference compounds at decreasing concentrations (see figure 2)</i>
	50 μ L of radioligand at the appropriate concentration (see graph below) 100 μ L of diluted membranes
3 - Incubation time:	60 minutes at 27°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

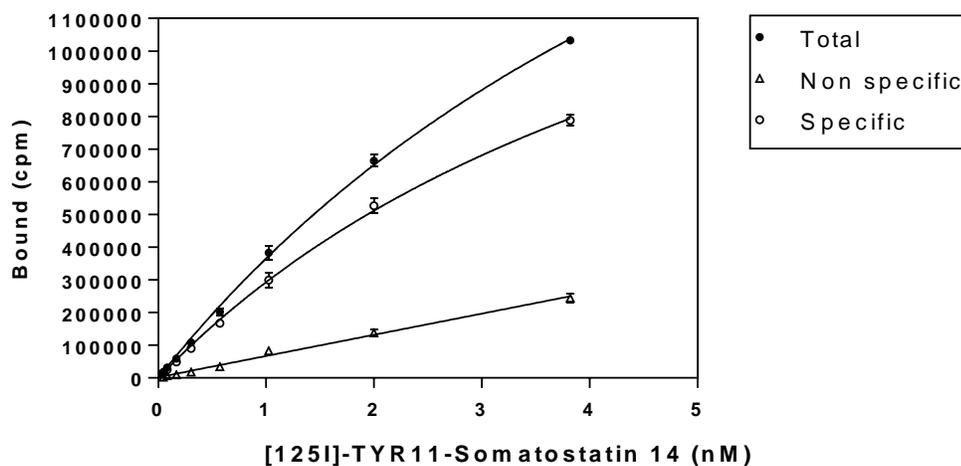


Figure 1: Saturation binding assay curve (filtration)
96-well saturation binding assay curve (25 μ g membranes/well, TopCount®) using [¹²⁵I]TYR¹¹-Somatostatin-14 (Revvity NEX389 Lot No.: JX12450)

Typical Product Data

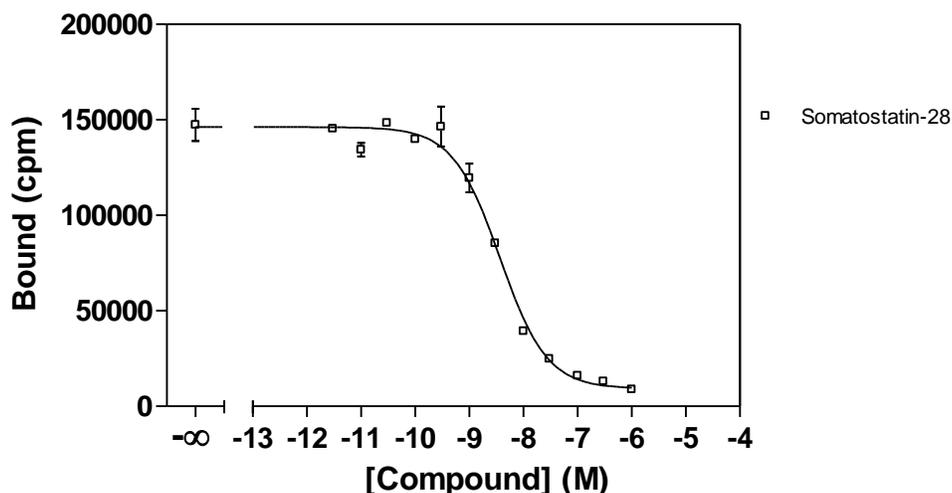


Figure 2: Competition binding assay curve (filtration)
96-well competition binding assay curve (25 μ g membranes/well, TopCount®). Recommended radioligand concentration = 0.5 nM.

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

Reference Compounds	Ki (nM)
Somatostatin-28	3.0

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