

Research use only. Not for use in diagnostic procedures.

Membrane Target Systems™

human Neurotensin NTS₁ Receptor

Product No.: RBXNT1M400UA

Lot No.: 2636429

Material Provided

Membranes: $1 \times 400 \text{ units} / 400 \mu \text{L}$ frozen aliquot

Product Information

Cellular Background: HEK293

GenBank Accession Number: NM_002531

Unit Size: 6 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): 0.7

Expression Level (B_{max}): 2.2 pmol/mg membrane protein

K_d for [¹²⁵I]-Neurotensin: 0.31 nM

Protein Concentration: 6 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, 1 mM MgCl₂, 0.1 % BSA, 0.8mM 1,10-Phenanthroline

Wash Buffer: 50 mM Tris-HCl pH 7.4, 1 mM MgCl₂, 0.1 % BSA

Binding Protocol: Binding assays are performed in 200 µL 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 μL of incubation buffer or Neurotensin (Bachem H-4435) 10 μM final for

non specific binding (Saturation binding assay)

For competition binding assay: 25 μ L of reference compounds at

decreasing concentrations (see figure 2)

25 μL of radioligand at the appropriate concentration (see graph below)

150 µL of diluted membranes

3 - Incubation time: 30 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

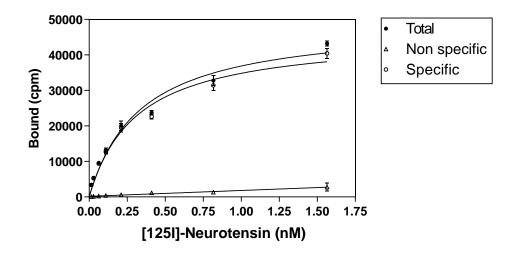


Figure 1: Saturation binding assay curve (filtration) 96-well saturation binding assay curve (6 µg membranes/well, TopCount®) using [125]-Neurotensin (Revvity NEX198 Lot No.: DAA2290)



Typical Product Data

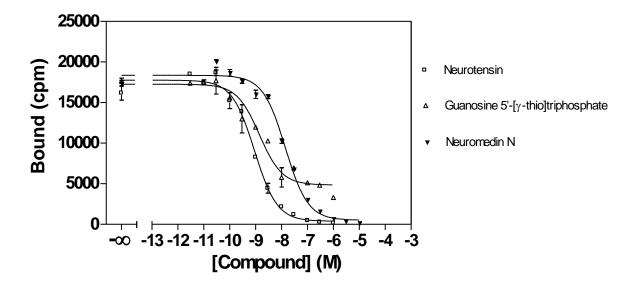


Figure 2: Competition binding assay curve (filtration) 96-well competition binding assay curve (6 μ g membranes/well, TopCount®). Recommended radioligand concentration = 0.4 nM.

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

Reference Compounds	Ki
	(nM)
Neurotensin	0.47
Guanosine 5′-[γ-thio]triphosphate	0.72
Neuromedin N	7.2

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