

Research use only. Not for use in diagnostic procedures.

Membrane Target Systems™

human Orexin OX₁ Receptor

Product No.: ES-330-M400UA

Lot No.: 2075250

Material Provided

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

Product Information

Cellular Background: CHO-K1

GenBank Accession Number: AF041243 (G280A)

Unit Size: 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

 IC_{50} is determined using a radioactive competition binding assay (Figure 1). Protein concentration is determined using the BCA method ⁽¹⁾. *We certify that these results meet our quality release criteria.

IC₅₀ for Orexin A: 3.4 nM

Protein Concentration: $1 \mu g/\mu L$

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



Recommended Assay Conditions

Assay Buffer: 25 mM Hepes pH 7.4, 5 mM MgCl₂, 1 mM CaCl₂, 0.5% BSA, 0.05% Tween

Wash Buffer: 50 mM Tris-HCl pH 7.4

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 Orexin A (Bachem H-4172) at decreasing

concentration (see graph below)

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

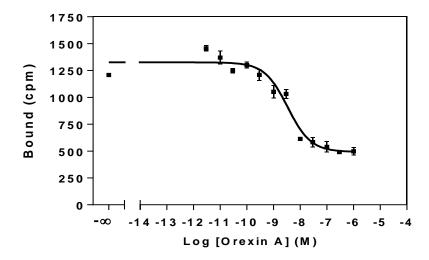


Figure 1: Competition binding assay curve (filtration) 96-well saturation binding assay curve (1 μ g membranes/well, TopCount®) using [125 I]-Orexin A (Revvity NEX367 Lot No.: JB51550). Recommended radioligand concentration = 0.16 nM.

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

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