human $GABA_{B1a}$ Receptor

Product No.: 6110560400UA

Lot No.: 2095500

Material Provided

Membranes:	1 x 400 units / 400 µL frozen aliquot

Product Information

Cellular Background:	HEK293
GenBank Accession Number:	AJ012288
Unit Size:	2 µg protein / unit
Storage Buffer:	50 mM Tris-HCL (pH 7.4), 0.5mM EDTA, 10mM $MgCl_2$, 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}):	4.9 pmol/mg membrane protein.
K_d for [^{3}H]-CGP 54626:	3.7 nM
Protein Concentration:	2 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, 2.5 mM $CaCl_2$
Wash Buffer:	50 mM Tris-HCl pH 7.4
Binding Protocol:	Binding assays are performed in 550 µL total volume according to the following conditions:

1 - Membrane dilution:	0.05 mL of membranes + 24.95 mL assay buffer (1:500 dilution)
2 - Incubation:	25 µL of incubation buffer or γ-Aminobutyric acid (Sigma A2129) 10000 µM final for non-specific binding (Saturation binding assay) For competition binding assay: 25 µL of reference compounds at decreasing concentrations (see figure 2) 25 µL of radioligand at the appropriate concentration (see graph below) 500 µL of diluted membranes
3 - Incubation time:	60 minutes at 27 °C
4 - Filtration:	aspirate and wash 9 x 500 µL with ice cold wash buffer over GF/C filter (presoaked in 50 mM Tris-HCl pH 7.4).

Lot Specific Data

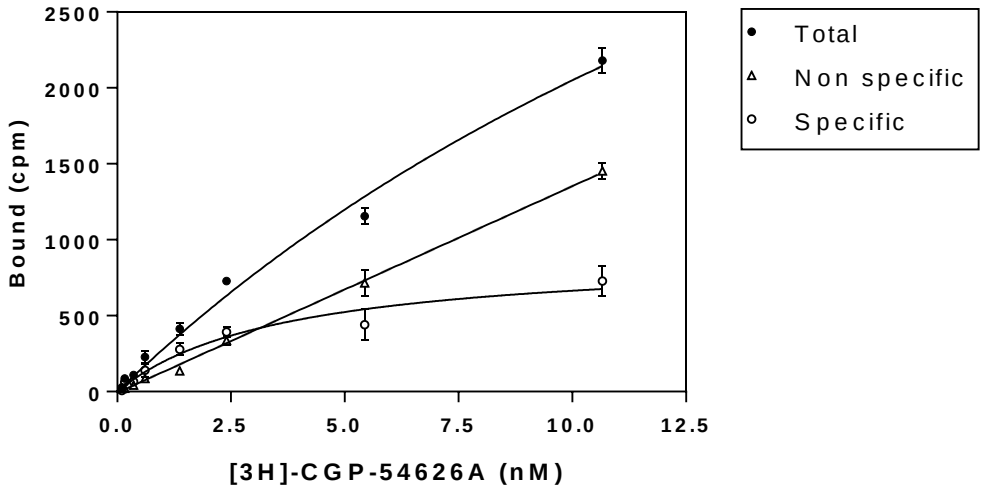

Figure 1: Saturation binding assay curve (filtration)
96-well saturation binding assay curve (2 µg membranes/well, TopCount®) using [^{3}H]-CGP 54626 (American Radiolabeled Chemicals ART0715 Lot No.: 151028)

Typical Product Data

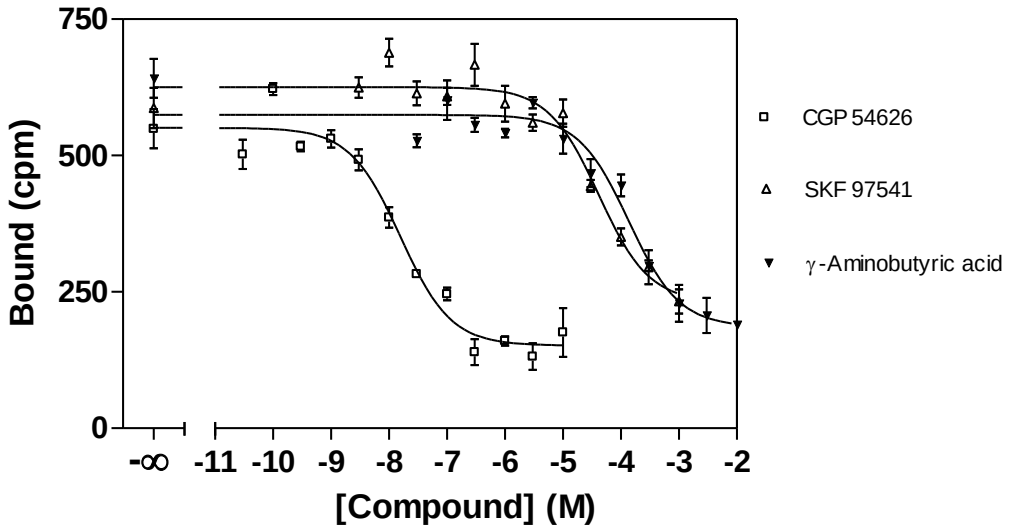

Figure 2: Competition binding assay curve (filtration)
96-well competition binding assay curve (2 µg membranes/well, TopCount®). Recommended radioligand concentration = 2 nM.

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

Reference Compounds	Ki (nM)
CGP 54626	10.9
SKF 97541	28730
γ-Aminobutyric acid	94198

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