

Supplementary Table 2. Displacement binding parameters in κ Light, δ Light, and μ Light cells.

Compound	κ Light		δ Light		μ Light	
	IC ₅₀ [nM]	% specific bound at 10 μ M	IC ₅₀ [nM]	% specific bound at 10 μ M	IC ₅₀ [nM]	% specific bound at 10 μ M
ME	130 $\pm$ 3	10 $\pm$ 5	947 $\pm$ 1	77 $\pm$ 4	2 $\pm$ 2	77 $\pm$ 3
LE	14 $\pm$ 3	13 $\pm$ 8	343 $\pm$ 1	65 $\pm$ 3	67 $\pm$ 2	70 $\pm$ 2
β -endorphin 31	81 $\pm$ 2	62 $\pm$ 4	2 $\pm$ 2	59 $\pm$ 2	12 $\pm$ 4	46 $\pm$ 3
DynA8	1 $\pm$ 2	71 $\pm$ 3	222 $\pm$ 1	51 $\pm$ 3	48 $\pm$ 2	58 $\pm$ 2
DynA17	47 $\pm$ 2	74 $\pm$ 4	47 $\pm$ 2	47 $\pm$ 2	15 $\pm$ 2	60 $\pm$ 2
DynB13	6 $\pm$ 2	76 $\pm$ 2	178 $\pm$ 2	58 $\pm$ 4	10 $\pm$ 2	61 $\pm$ 2
Metorphamide	13 $\pm$ 2	28 $\pm$ 3	56 $\pm$ 1	53 $\pm$ 3	1490 $\pm$ 2	40 $\pm$ 3
BAM 18	243 $\pm$ 2	66 $\pm$ 3	32 $\pm$ 3	32 $\pm$ 3	14 $\pm$ 2	82 $\pm$ 2
Peptide E	252 $\pm$ 2	40 $\pm$ 2	2278 $\pm$ 2	51 $\pm$ 7	154 $\pm$ 2	65 $\pm$ 2
Peptide F	18 $\pm$ 3	21 $\pm$ 6	901 $\pm$ 2	40 $\pm$ 4	13 $\pm$ 3	34 $\pm$ 2
α -neoendorphin	6 $\pm$ 3	42 $\pm$ 4	n.t.	n.t.	n.t.	n.t.
β -neoendorphin	13 $\pm$ 2	25 $\pm$ 5	n.t.	n.t.	n.t.	n.t.
DAMGO	n.t.	n.t.	n.t.	n.t.	2 $\pm$ 2	79 $\pm$ 3
Morphine	n.t.	n.t.	n.t.	n.t.	2249 $\pm$ 2	77 $\pm$ 2
Oxycodone	n.t.	n.t.	n.t.	n.t.	103 $\pm$ 2	32 $\pm$ 3
Fentanyl	n.t.	n.t.	n.t.	n.t.	2587 $\pm$ 2 1 $\pm$ 2*	62 $\pm$ 3 88 $\pm$ 4*
Deltorphan II	n.t.	n.t.	53 $\pm$ 2	72 $\pm$ 2	n.t.	n.t.
DPDPE	n.t.	n.t.	215 $\pm$ 2	83 $\pm$ 2	n.t.	n.t.
SNC80	n.t.	n.t.	246 $\pm$ 2	88 $\pm$ 3	n.t.	n.t.
U69,593	110 $\pm$ 2	72 $\pm$ 2	n.t.	n.t.	n.t.	n.t.

Displacement binding assays were carried out with membranes (100 μ g) from μ Light, δ Light or κ Light cells, [3H] diprenorphine (3 nM final concentration) and different ligands (0- 10 μ M final concentration) as described in Methods. Data are Mean $\pm$ SE of 3 experiments in triplicate.

Binding in the absence of cold ligand was taken as

100% bound. Binding in the presence of 10 μ M ligand was taken as non-specific binding. % Specific binding at 10 μ M = Total binding – non-specific binding. n.t.= not tested.

* Data for Fentanyl with CHO-MOR membranes; this is provided as a comparison to data with μ Light membranes.

