Figure 1

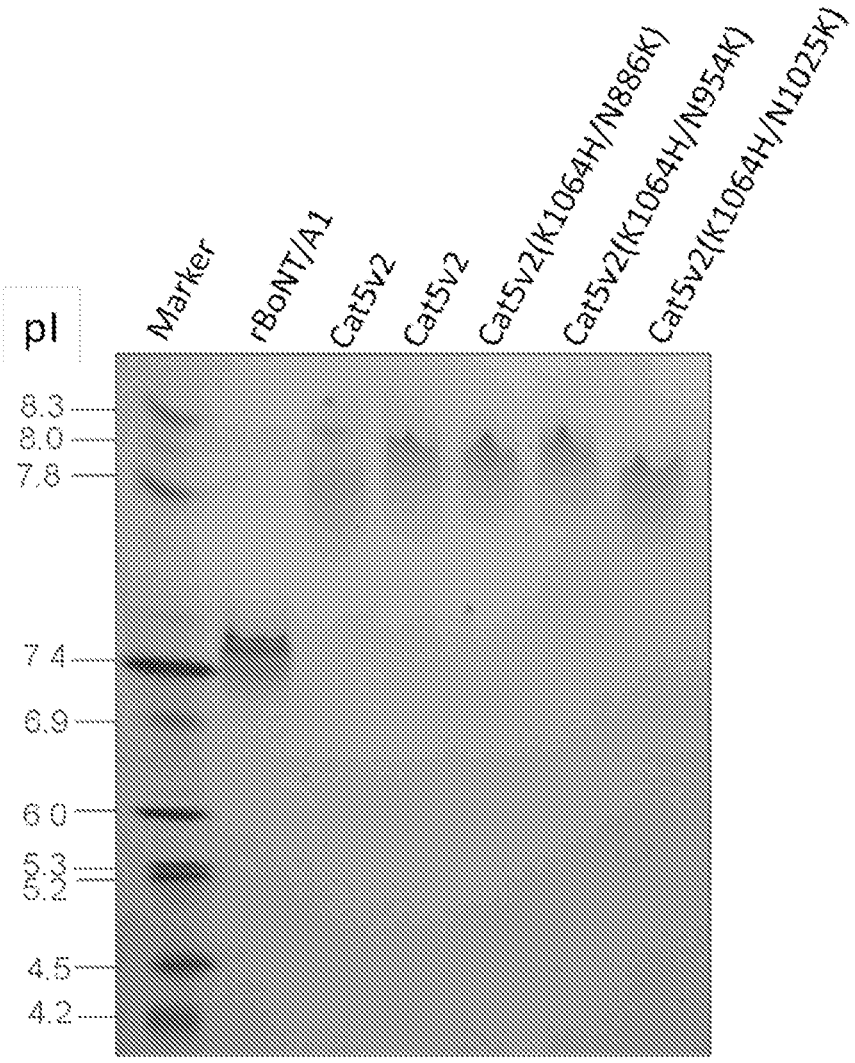
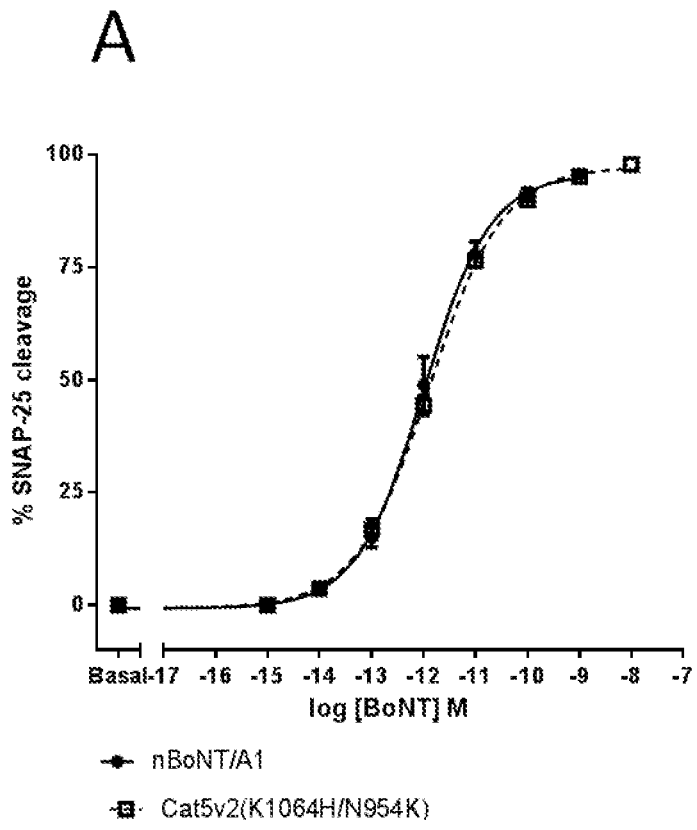
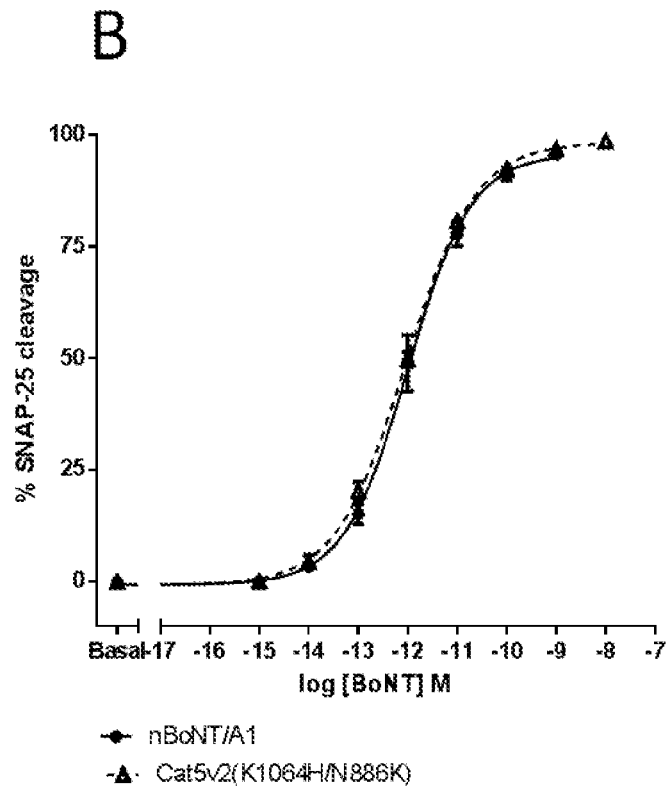
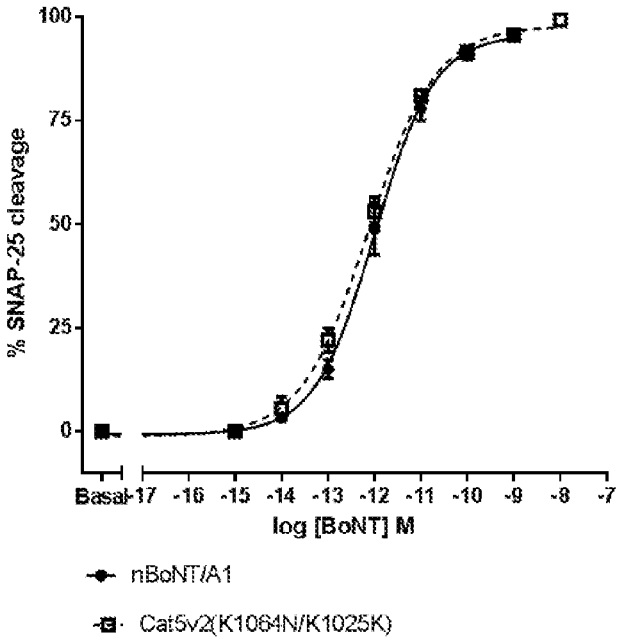

pI
Marker
rBoNT/A1
Cat5v2
Cat5v2
Cat5v2(K1064H/N886K)
Cat5v2(K1064H/N954K)
Cat5v2(K1064H/N1025K)
8.3
8.0
7.8
7.4
6.9
6.0
5.3
5.2
4.5
4.2

Figure 2


A
100
75
50
25
0
% SNAP-25 cleavage
Basal
-17
-16
-15
-14
-13
-12
-11
-10
-9
-8
-7
log [BoNT] M
nBoNT/A1
Cat5v2(K1064H/N954K)


B
100
75
50
25
0
% SNAP-25 cleavage
Basal
-17
-16
-15
-14
-13
-12
-11
-10
-9
-8
-7
log [BoNT] M
nBoNT/A1
Cat5v2(K1064H/N886K)

C


100
75
50
25
0
% SNAP-25 cleavage
Basal
-17
-16
-15
-14
-13
-12
-11
-10
-9
-8
-7
log [BoNT] M
nBoNT/A1
Cat5v2(K1064N/K1025K)

D

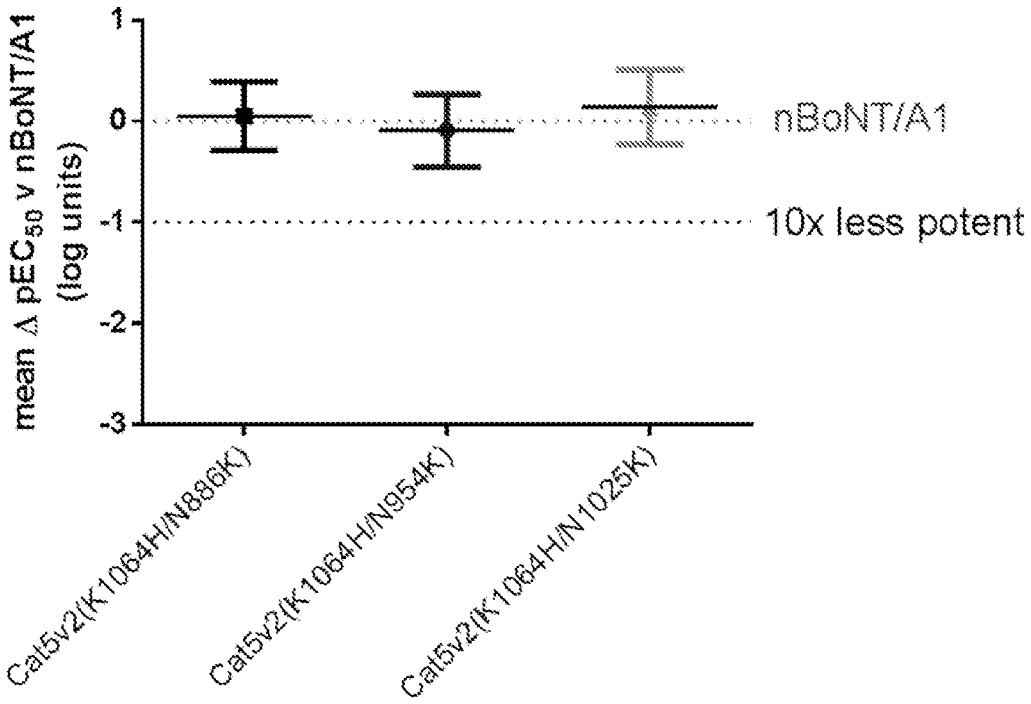
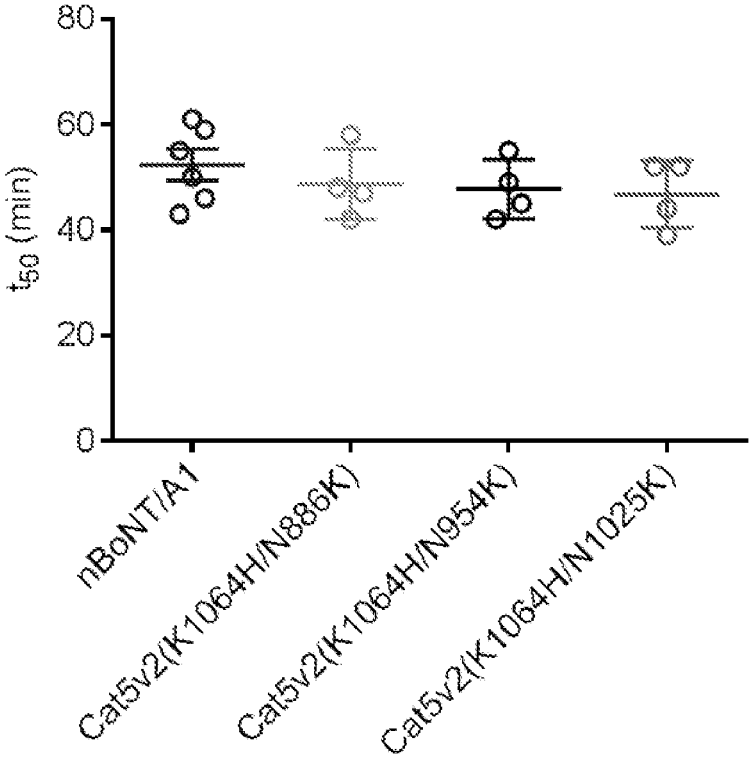

mean Δ pEC50 v nBoNT/A1 (log units)
1
0
-1
-2
-3
nBoNT/A1
10x less potent
Cat5v2(K1064H/N886K)
Cat5v2(K1064H/N954K)
Cat5v2(K1064H/N1025K)

Figure 3



SXN/Batch	t_{50} (mean min ± sem)
nBoNT/A1	52 ± 3
Cat5v2(K1064H/N886K)	49 ± 3
Cat5v2(K1064H/N954K)	48 ± 3
Cat5v2(K1064H/N1025K)	47 ± 3