

β3- nAChR subunit null mutation from Dr Steve Heinemann

On C57Bl6 and 129 backgrounds (each 10 generations)

Reference: Cui C, Booker TK, Allen RS, Grady SR, Whiteaker P, Marks MJ, Salminen O, Tritto T, Butt CM, Allen WR, Stitzel JA, McIntosh JM, Boulter J, Collins AC, Heinemann SF. (2003) The β3 nicotinic receptor subunit: a component of α-conotoxin MII binding nAChRs which modulate dopamine release and related behaviors. *J. Neurosci* **23**:11045–11053

β3 PCR Protocol

Volume of Reagent	Reagent
11.25 μL	Molecular Grade Water
2.5 μL	10X PCR Buffer
2.5 μL	MgCl ₂ (25mM)
2.5 μL	DMSO (100X)
1.0 μL	dNTP Mix (10mM each dNTP)
0.75 μL	Lac Z 5' Primer (10 μM)
0.75 μL	Lac Z 3' Primer (10μM)
0.75 μL	β3 5' Primer (10μM)
0.75 μL	β3 3' Primer (10μM)
0.25 μL	Amplitaq Gold Polymerase
2.0 μL	Genomic DNA
25.0 μL Total Volume	(Buffer, MgCl ₂ and Polymerase from PE Biosystems)

Thermal Cycler Program

Updated: 4/15/05

94° 10 minutes
94° 1 minute
60° 1 minute
72° 1 minute
72° 7 minutes
4° Hold

} 30 cycles

β3 Bands

+/+ 850bp
+/- 600bp and 850bp
-/- 600bp

Primer Sequences

β3 5' Primer: 5'-GGGCTCTCTCATGACCAAGG-3'
β3 3' Primer: 5'-GTATCTGATGGACTCAGAGGCC-3'
Lac Z 5' Primer: 5'-CACTACGTCTGAACGTCGAAAA-3'
Lac Z 3' Primer: 5'-CGGGCAAATAATATCGGTGGC-3'