

α 7- nAChR subunit null mutation from Dr Art Beaudet

On C57Bl6, C3H, A, 129, DBA backgrounds (each 10 generations)

Reference: A. Orr-Urtreger, F.M. Goldner, M. Saeki, I. Lorenzo, L. Goldberg, J.A. Dani, J.W. Patrick and A.L. Beaudet (1997) Mice deficient in the α 7 neuronal nicotinic acetylcholine receptor lack α -bungarotoxin binding sites and hippocampal fast nicotinic currents, *J. Neurosci.* **17**: 9165–9171.

α 7 PCR Protocol

Volume of Reagent	Reagent
15.25 μ L	Molecular Grade Water
2.5 μ L	10X PCR Buffer
1.5 μ L	MgCl ₂ (25mM)
1.0 μ L	DMSO (100X)
0.5 μ L	dNTP Mix (10mM each dNTP)
0.5 μ L	α 7 Neo Primer (100 μ M)
0.5 μ L	α 7 Forward Primer (10 μ M)
0.5 μ L	α 7 Reverse Primer (2.5 μ M)
0.25 μ L	AmpliTaq Gold Polymerase
2.0 μ L	Genomic DNA
25 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

α 7 Bands

+/+ 444bp
+/- 444 and 750bp
-/- 750bp

Primer Sequences

α 7 Forward Primer: 5'-CCTGGTCCTGCTGTGTTAACTGCTTC-3'
 α 7 Reverse Primer: 5'-CTGCTGGGAAATCCTAGGCACACTTGAG-3'
 α 7 Neo Primer: 5'-GACAAGACCGGCTTCCATCC-3'