

A HIGHLY POLYMORPHIC COPY NUMBER VARIANT IN THE *NSF* GENE IS ASSOCIATED WITH COCAINE DEPENDENCE

Judit Cabana-Domínguez^{1,2,3}, Carlos Roncero^{4,5,6,7}, Lara Grau-López^{4,5,6,7}, Laia Rodríguez-Cintas^{5,6}, Carmen Barral^{4,5,6,7}, Alfonso C. Abad^{4,5}, Galina Erikson⁸, Nathan E. Wineinger⁸, Bàrbara Torrico^{1,2,3}, Concepció Arenas⁹, Miquel Casas^{4,6,7}, Marta Ribasés^{4,7,10}, Bru Cormand^{*1,2,3} & Noèlia Fernández-Castillo^{*1,2,3} &

Supplementary Table S1. Association study of CNV in the *NSF* gene in cocaine dependent Spanish patients.

Number of copies	Discovery		Replication		Pooled analysis ¹	
	Controls N (%)	Cases N (%)	Controls N (%)	Cases N (%)	Controls N (%)	Cases N (%)
2	92 (25.8)	118 (32.9)	150 (26.4)	152 (29.9)	242 (26.2)	270 (31.5)
3	134 (37.6)	141 (39.3)	199 (35.0)	201 (39.6)	333 (36.0)	342 (39.9)
4	87 (24.4)	75 (20.9)	134 (23.6)	103 (20.3)	221 (23.9)	178 (20.7)
5	33 (9.3)	22 (6.1)	62 (10.9)	37 (7.3)	95 (10.3)	59 (6.9)
6	10 (2.8)	3 (0.8)	24 (4.2)	15 (3)	34 (3.7)	18 (2.1)
SUM	356	359	569	508	925	867
p-value	0.03696		0.06021		0.00134	

In bold: significant p-values. ¹ Discovery + replication samples.

Supplementary Table S2. Haplotype frequencies.

rs183211	CNV	Frequencies
A	1	0.045
A	2	0.235
A	3	0.022
G	1	0.515
G	2	0.101
G	3	0.083

Supplementary Table S3. Primer sequences used in qRT-PCR assays.

Gene	Region or transcript		Nucleotide sequence (5'→3')
<i>ALB</i>	Intron 12	Fw	TTGTGGGCTGTAATCATCG
		Rv	TGCTGGTTCTCTTTCCTGAC
<i>GAPDH</i>	GAPDH_001	Fw	AGCCACATCGCTCAGACAC
		Rv	GCCCAATACGACCAATCC
<i>HPRT1</i>	HPRT1_001	Fw	TGATAGATCCATTCTATGACTGTAGA
		Rv	CAAGACATTCTTCCAGTTAAAGTTG
<i>NSF</i>	Exon 2	Fw	GGCAAGATGTCCTACAGATGAA
		Rv	CGAATGCCACTTAGCAGGTTA
	Exon 13	Fw	GCAAGTGACGAGAGGAGAC
		Rv	TGGCACTTACTTTTCGCTG
	Intron 13	Fw	GAGGGTTTGAGTCTGGTGGA
		Rv	AGCCTGGAAAGCAAAACAAC
	NSF_001 + NSFP1_001	Fw	CCCCCAGGTTGTGGTAAGAC
		Rv	ACTGTTAGCACCAAGCCTCC
NSF_001	Fw	GCTGATCGAGATGTCCCTAC	
	Rv	CTTCAGGCAAAGAGAATACCAG	
NSF_002	Fw	ACTGAAGACACATCCATCGGT	
	Rv	TACCATAACTATTTCTTCCC	
NSF_003	Fw	GCCACAGGAGAGCAGC	
	Rv	CCTTGCTTGGTCTCTCGG	