Extended Data Figure 1-1. Tinnitus subject demographic and audiological information.

Tinnitus subject demographic and audiological information. A total of 45 tinnitus subjects participated in the study, indicated by subject codes from 1 to 45, followed by age (years); C (category: Y, young; O, old); S (sex: F, female; M, male); audiometric thresholds (dB HL) from 125 to 8000 Hz; and self-reported tinnitus type, tinnitus laterality, and etiology. TSI (tinnitus severity index) is the average of tinnitus functional index (**Meikle et al., 2012**), and tinnitus handicap inventory (**Newman et al., 1996**). Tinnitus match measures include tinnitus frequency (Hz), level (dB SL), and similarity rating (0–1: with 0 indicating not at all similar to the perceived tinnitus; and 1 being identical to the tinnitus). The last column shows the experiments in which each subject participated, with 1 being gap detection, 2 being frequency discrimination, 3 being intensity discrimination, 4 being masking and overshoot, 5 being temporal modulation detection function, and 6 being speech in noise recognition.

Subject info				Audiogram (Hz/dB HL)							Tinnitus information							Exp
Sub #	Age	C	S	125	250	500	1000	2000	4000	8000	Type	Laterality	Etiology	TSI	Freq (Hz)	Level (dB SL)	Similarity (0-1)	1-6
1	20	Y	F	5	5	10	10	15	50	45	Tonal	Bilateral	Recreational noise	15	4150	0.6	0.9	2,3,
2	21	Y	F	5	5	0	10	20	0	15	Multi-tonal	Bilateral	Unknown	25	1000 /3148	18.0/2.8	0.44/0.51	1,2,3,5, 6
3	21	Y	F	20	15	20	15	10	15	15	Tonal +pulsing	Bilateral	Vertigo	36				5,6
4	22	Y	M	5	5	5	0	0	0	0	Tonal	Bilateral	Recreational noise	86				5,6
5	23	Y	M	5	0	0	5	0	0	5	Tonal	Bilateral	Recreational noise	77	10462	16.1	0.8	2,3
6	25	Y	F	25	25	30	25	15	10	20	Multi-tonal	Left	Occu/Rec noise/Trauma	37	348 /6016	19.5/5.0	0.81/0.98	1,2,3,4, 5,6
7	25	Y	M	20	15	15	5	10	10	5	Tonal	Right	Recreational noise	19				5,6
8	27	Y	M	15	0	5	10	5	5	-5	Tonal	Bilateral	Occu/Rec noise	13				5,6
9	27	Y	M	25	25	15	5	5	0	-10	Tonal	Bilateral	Recreational noise	8				4,5,6
10	30	Y	M	15	10	10	0	0	25	20	Tonal	Bilateral	Occu/Rec noise	82				4,5,6
11	31	Y	M	0	5	5	5	5	0	20	Tonal	Bilateral	Recreational noise	12				5,6
12	31	Y	F	15	10	15	15	10	10	25	Tonal	Bilateral	Recreational noise	78	1166	9.9	0.53	2,3
13	32	Y	M	5	5	0	0	7	0	25	Nontonal	Head	Rec noise/ Medication	55	12765	24.6	0.65	2,3
14	32	Y	M	10	0	0	0	-5	0	20	Tonal	Bilateral	Recreational noise	37	11154	0.9	0.8	2,3
15	33	Y	M	5	5	10	10	10	30	30	Tonal	Bilateral	Recreational noise		10314	10.3	0.83	1,2,3
16	35	Y	M	0	0	5	20	25	25	15	Tonal	Bilateral	Occu/Rec/Military noise	34				6
17	35	Y	M	25	20	15	10	10	10	25	Tonal	Left	Unknown (stress)	27	1302	3.5	0.76	1,2,3,4
18	36	Y	M	10	10	0	5	0	-5	15	Tonal	Right	Unknown (pain)	34				6
19	36	Y	M	5	5	10	15	15	30	40	Tonal	Bilateral	Occu/ Rec noise	72				6
20	36	Y	M	10	0	0	0	10	20	15	Tonal	Bilateral	Unknown (cold)	74	11105	7.3	0.71	1,2,3
21	39	Y	M	15	5	5	5	10	20	10	Tonal	Left	Unknown (ear pain)	10				5,6
22	41	O	M	30	20	15	10	35	55	65	Tonal +noise	Bilateral	Sudden hearing loss	37				6
23	42	O	F	0	0	5	30	30	10	18	Tonal +noise	Bilateral	Rec noise/ Medication	32				6
24	43	O	M	15	15	15	15	15	10	45	Tonal	Left	Recreational noise	34				5,6
25	44	O	M	5	5	0	5	10	5	10	Tonal	Left	Occu/Rec noise	52	4538	10.5	0.88	2,3,
26	47	O	M	10	15	25	20	20	25	20	Tonal	Bilateral	Military noise	38				6
27	47	O	M	15	5	10	15	5	15	25	Tonal	Bilateral	Recreational noise	8				6
28	52	O	F	15	10	10	10	10	15	10	Tonal +noise	Bilat +Head	Ear infection/ Vertigo	27	2157 /6016	18.8/20	0.74/0.98	1,2,5,6
29	52	O	F	10	10	10	5	5	5	10	Tonal	Bilateral	Occu/Rec/ Military noise	61				5,6
30	54	O	F	10	5	0	10	5	15	15	Tonal +noise	Right +Head	Medication	43	8424	12.5	0.86	2,3,4
31	55	O	M	5	5	5	15	20	10	15	Tonal +noise	Bilateral	Unknown (Medication)	46				6
32	56	O	M	10	0	5	0	5	35	55	Tonal	Bilateral	Occupational noise	18				4,5,6
33	57	O	M	10	5	15	20	30	30	50	Nontonal	Bilateral	Occu/Rec noise	36				5,6
34	57	O	M	10	10	15	20	20	30	70	Tonal +pulsing	Bilateral	Recreational noise	14				5,6
35	57	O	F	20	20	20	20	20	25	55	Tonal +pulsing	Bilateral	Occu/Rec noise/ Medication	18	250 /10504	12.0/1.4	0.70/0.90	1,4
36	58	O	F	5	5	5	5	5	15	30	Nontonal	Bilateral	Recreational noise	7				5,6
37	60	O	F	25	35	40	55	20	10	50	Tonal	Bilateral	Occu/Rec noise	14				5,6
38	60	O	F	-5	0	5	5	15	20	35	Tonal +noise	Bilateral	Occu/Rec noise	58				4,5,6
39	62	O	M	20	5	0	5	15	42.5	40	Tonal	Bilateral	Rec/Military noise	35	4173	4.2	0.84	1,2,3
40	63	O	F	15	10	5	5	5	25	20	Tonal	Bilateral	Meniere's					5,6
41	65	O	F	20	20	20	20	30	35	65	Tonal	Right +Head	Vertigo	15	5003	8.1	0.87	1,2,3,5, 6
42	67	O	M	25	15	5	5	5	15	50	Tonal	Bilateral	Recreational noise	66	7145	15.2	0.74	2,3,4,5, 6
43	68	O	F	25	25	45	25	20	20	70	Tonal	Bilateral	Recreational noise	49	8263	8.7	0.85	1,4
44	70	O	M	20	15	10	15	15	50	60	Tonal +noise	Bilateral	Occu/Rec noise	44				6
45	70	O	F	0	0	5	5	5	15	30	Tonal	Bilateral	Noise/ Migraine	33	5034	13.9	0.9	1,2,3