

# Supplementary Materials: Monoclonal Antibody Combinations Prevent Serotype A and Serotype B Inhalational Botulism in a Guinea Pig Model

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**Table 1.** Neutralizing Antibody Concentrations (NAC) of NTM-1631 in individual guinea pigs.

Group	Study Iteration	Guinea Pig ID Number	NAC (Units/mL)
PBS	1	223	NM
		255	NM
		229	NM
		235	8.7
NTM-1631	1	217	8.7
		208	6.0
		294	NM
PBS	2	290	NM
		286	NM
		272	25
NTM-1631	2	259	7.9
		287	4.6

NTM-1631 delivered intramuscularly, 1.5 mg dose. Two study iterations were performed. N.M. = No measurable levels.

**Table S2.** Neutralizing Antibody Concentrations (NAC) of NTM-1632 in individual guinea pigs.

Treatment Group	Study Iteration	Guinea Pig ID Number	NAC (Units/mL)
PBS	1	218	NM
		219	NM
		220	NM
NTM-1632	1	231	16
		249	21
		224	30
		279	NM
PBS	2	264	NM
		296	NM
		310	12
NTM-1632	2	266	32
		281	19

NTM-1632 delivered intramuscularly, 1.5mg dose. Two study iterations were performed. NM = Not measurable.

**Table S3.** Raw data of mouse neutralization assay used to determine individual guinea pig NAC reported in Table S1. Testing was completed in two iterations using PerImmune BoNT/A/09/97 reference antitoxin (PI-A).

Treatment	Guinea Pig ID		Antibody Concentration (Serial Dilution)	No. Mice Dead/ Number Tested	
	Study 1	Study 2		Study 1	Study 2
PBS				0/7	0/7
PI-A (no toxin)				0/7	0/7
BoNT/A1 (no antibody)				6/7	6/7
			0.005	6/7	6/7
			0.0071	7/7	7/7
			0.01	7/7	6/7
	(No Guinea Pig)	(No Guinea Pig)	0.014	6/7	6/7
PI-A			0.02	3/7	2/7
			0.028	0/7	0/7
			0.04	0/7	0/7
			0.057	0/7	0/7
			0.08	0/7	0/7
			1	7/7	7/7
			0.25	7/7	7/7
			0.063	7/7	7/7
PBS	223	294	0.016	6/7	7/7
			0.0039	7/7	5/7
			0.00098	6/7	5/7
			0.00024	7/7	6/7
			1	6/7	7/7
			0.25	7/7	6/7
			0.063	6/7	7/7
PBS	255	290	0.016	6/7	6/7
			0.0039	7/7	7/7
			0.00098	7/7	7/7
			0.00024	6/7	7/7
			1	7/7	7/7
			0.25	7/7	6/7
			0.063	6/7	6/7
PBS	229	286	0.016	6/7	7/7
			0.0039	7/7	7/7
			0.00098	7/7	7/7
			0.00024	7/7	6/7
			0.25	0/7	0/7
			0.063	0/7	0/7
			0.016	0/7	0/7
NTM-1631	235	272	0.0039	1/7	0/7
			0.00098	6/7	5/7
			0.00024	7/7	7/7
			0.000061	7/7	4/7
			0.25	0/7	0/7
			0.063	0/7	0/7
			0.016	0/7	0/7
NTM-1631	217	259	0.0039	0/7	0/7
			0.00098	7/7	7/7
			0.00024	7/7	7/7
			0.000061	7/7	7/7

			0.25	0/7	0/7
			0.063	0/7	0/7
			0.016	0/7	0/7
NTM-1631	208	287	0.0039	3/7	1/7
			0.00098	6/7	7/7
			0.00024	7/7	7/7
			0.000061	7/7	7/7

**Table S4.** Raw data of mouse neutralization assay used to determine individual guinea pig NAC reported in Table S2. Testing was completed in two iterations using WHO BoNT/B 13209 3000.1185 reference antitoxin (WHO-B).

Treatment	Guinea Pig ID		Antibody Concentration	No. Mice Dead / Number Tested	
	Study 1	Study 2		Study 1	Study 2
PBS			N.A.	0/7	0/7
WHO-B (Control)			N.A.	0/7	0/7
BoNT/B1 (Control)			N.A.	5/7	7/7
			0.0013	7/7	7/7
			0.0018	5/7	6/7
	(No guinea pig)	(No guinea pig)	0.0025	6/7	6/7
			0.0035	7/7	3/7
WHO-B			0.005	2/7	3/7
			0.0071	0/7	0/7
			0.01	0/7	0/7
			0.014	0/7	0/7
			0.02	0/7	0/7
			1	7/7	7/7
			0.25	6/7	7/7
			0.063	7/7	7/7
PBS	279	218	0.016	6/7	7/7
			0.0039	7/7	6/7
			0.00098	6/7	5/7
			0.00024	6/7	7/7
			1	7/7	7/7
			0.25	7/7	7/7
			0.063	7/7	7/7
PBS	264	219	0.016	6/7	7/7
			0.0039	6/7	7/7
			0.00098	7/7	7/7
			0.00024	7/7	5/6
			1	7/7	7/7
			0.25	6/7	7/7
			0.063	7/7	6/7
PBS	296	220	0.016	6/7	7/7
			0.0039	6/7	7/7
			0.00098	6/7	6/7
			0.00024	6/7	7/7

**Table S4.** Cont.

			0.015	0/7	0/7
			0.0038	0/7	0/7
			0.00096	0/7	0/7
NTM-1632	310	231	0.00024	7/7	6/7
			0.00006	5/7	6/7
			0.000015	6/7	7/7
			0.0000038	7/7	7/7
			0.015	0/7	0/7
			0.0038	0/7	0/7
			0.00096	0/7	0/7
NTM-1632	266	249	0.00024	5/7	1/7
			0.00006	7/7	7/7
			0.000015	7/7	6/7
			0.0000038	5/7	7/7
			0.015	0/7	0/7
			0.0038	0/7	0/7
			0.00096	0/7	0/7
NTM-1632	281	224	0.00024	3/7	5/7
			0.00006	7/7	7/7
			0.000015	6/7	5/7
			0.0000038	6/7	7/7