

BROADLY NEUTRALIZING ANTIBODY COMBINATIONS

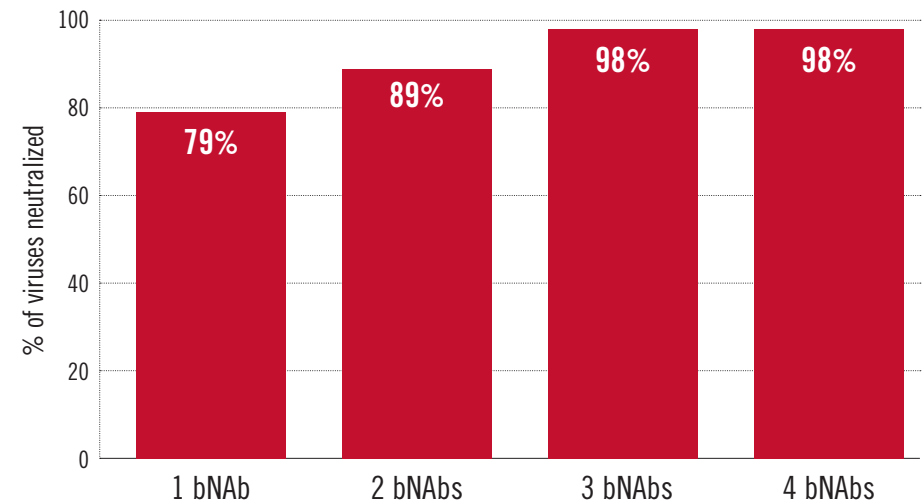
As with antiretroviral combinations used in treatment, passive immunization with broadly neutralizing antibodies (bNABs) to protect against HIV will likely require two or more bNABs that target different parts of the virus. There are many factors to consider when selecting bNAB combinations, including how many bNABs and which ones work best together. Here we outline the bNAB combinations being explored in early clinical studies.

bNAB Cocktails: Two or more antibodies in a regimen				
Regimen	Status	Route	Research Institution	Trial Name
	Phase I, Completed	IV	Rockefeller University	YCO-0899
	Phase I, Ongoing	IV, SC	Rockefeller University	YCO-0971
	Phase I/2, Ongoing	IV, SC	IAVI, Rockefeller University, University of Washington	IAVI C100
	Phase I, Completed Phase I/2a, Ongoing	IV	BIDMC, IAVI, NIAID	IAVI T002 IAVI T003
	Phase I, Ongoing	IV	NIAID	HVTN 130/ HPTN 089
	Phase I, Ongoing	IV, SC	NIAID	HVTN 136/ HPTN 092
	Phase I, Ongoing	SC	NIAID	HVTN 138/ HPTN 098
	Phase I, Ongoing	IV, SC	CAPRISA, NIAID	CAPRISA 012B

Trial includes multiple arms, testing up to 3-bNAB combinations

Multispecific: Parts of two or more antibodies on a single antibody				
Regimen	Status	Route	Research Institution	Trial Name
SAR441236	Phase I, Planned	IV	Sanofi, NIAID	HVTN 129/ HPTN 088
	Phase I, Ongoing	IV, SC	ADARC	AAAS1239

Combining bNABs to broaden neutralization*



Different antibodies have different neutralizing activities. Modeling and preclinical studies suggest that combining bNABs may lead to broader neutralization compared to giving bNABs alone, and multispecific antibodies might perform better than combinations. Clinical trials will validate whether these differences are seen in humans, and guide selection of best antibodies and combinations types.

*Data: Kong et al., 2015

bNAb Key									
V3-glycan:					CD4 binding site:				
10-1074	10-1074-LS	10-1074-LS-J	PGT121	PGT121.414.LS	3BNC117	3BNC117-LS	3BNC117-LS-J		
gp41 MPER:		V1/V2-glycan:							
				Ibalizumab (iMab)					
10E8.4	CAP256V2LS	PGDM1400			VRC01	VRC01-LS	VRC07-523LS		