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# HIV-1 Vaccine-elicited Antibodies Reverted to Their Inferred Naive Germline Reveal Associations between Binding Affinity and in vivo Activation.

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Authors	Dai, K, Khan, SN, Wang, Y, He, L, Guenaga, J, Ingale, J, Sundling, C, et al.
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Abstract	The elicitation of HIV-1 broadly neutralizing antibodies following environmental exposure to HIV-1 antigens is a key step in the development of a protective vaccine. However, the mechanisms underlying the elicitation of broadly neutralizing antibodies (BNAbs) are not fully understood. Here, we show that BNAbs elicited in mice after exposure to HIV-1 antigens are associated with a specific germline B cell population that is characterized by a high degree of sequence diversity and a high degree of affinity for HIV-1 antigens. This population is distinct from the population of B cells that are typically associated with the early stages of the B cell response to HIV-1 antigens. Our findings suggest that the elicitation of BNAbs is a result of a specific selection process that occurs during the B cell response to HIV-1 antigens.
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