



TECHNOLOGY

Anti-shark IgNar mouse monoclonal (GA8) antibody

OVERVIEW

The cartilaginous fish (sharks, skates, and rays) have a human-type adaptive immune system as well as immunoglobulins (Igs). In addition to the heavy-light chain heterodimeric isotypes (IgM and IgW), sharks also produce a novel isotype called **IgNAR**. **IgNAR is a heavy chain homodimer that does not associate with light chains.** Its variable (V) regions act as independent, soluble units in order to bind the antigen. These heavy chain ONLY or "single-domain" antibodies have potential as therapeutic tools.

UMB researchers have developed an anti-shark IgNar mouse monoclonal antibody that can be used as a research tool to monitor immune responses in sharks.

Publication: A shark antibody heavy chain encoded by a nonsomatically rearranged VDJ is preferentially expressed in early development and is convergent with mammalian IgG. [Proc Natl Acad Sci U S A](#). 2001 Feb 13;98(4):1775-80.

CONTACT INFO

Office of Technology Transfer
620 W Lexington St., 4th Floor
Baltimore, MD 21201
Email: ott@umaryland.edu
Phone: (410) 706-2380

Additional Information

INSTITUTION

University of Maryland, Baltimore

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CATEGORIES

- Research Tools, Antibodies, & Reagents

INVESTIGATOR(S)

Martin Flajnik

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