

DNA Immunization Service

Powerful technology for Ab production against problematic antigens and early DNA vaccine development studies



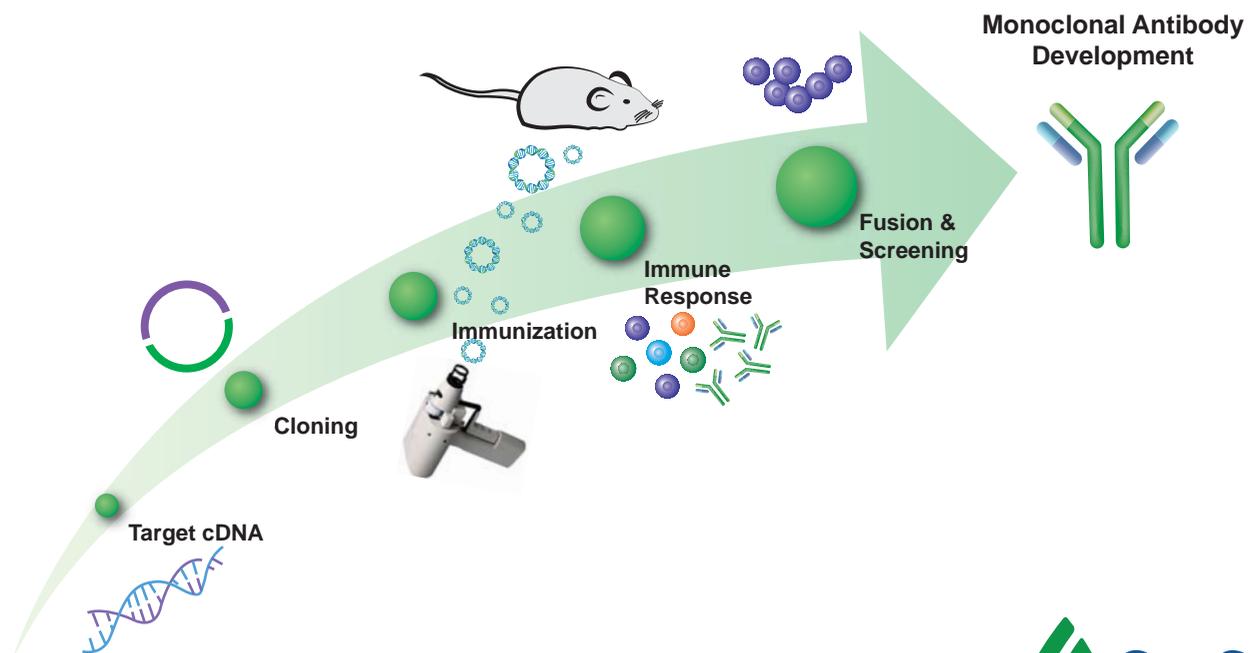
Have a challenging protein antigen?

GenScript DNA Immunization Service offers the best solution:

- No need to produce and purify target protein *in vitro*
- Streamlines Ab production against problematic antigens
- Readily integrated downstream applications for Ab drug development
- Built-in flexibility

Ab development solution for even the most challenging antigens:

- Transmembrane proteins
- Insoluble proteins
- Proteins with disulfide bonds
- Insufficient *in vitro* protein production
- Large protein domains
- Toxic proteins
- Post translational-modified proteins
- Unstable proteins





At GenScript, our team of scientists possess unparalleled expertise in custom Ab and drug development services. Since 2004, we have provided over 13,000 high quality custom Abs to clients all over the world.

DNA Immunization Service:

Solution for Problematic Antigens	Early DNA Vaccine Development
<ul style="list-style-type: none">• Transmembrane proteins (such as GPCRs & ion channels)• Large protein domains• Insoluble proteins• Toxic proteins• Proteins containing disulfide bonds• Post translational-modified proteins• Unstable proteins• Insufficient <i>in vitro</i> protein production	<ul style="list-style-type: none">• Superior codon optimized gene synthesis technology ensures quality antigen production <i>in vivo</i>• Optimized plasmid vectors and immunization protocols promote transfection efficiency• Specialized adjuvant and immune mediators substantially enhance immune response

DNA Immunization Package Structure:

	Gene Synthesis & Validation	<ul style="list-style-type: none">• Codon optimization• Gene synthesis & plasmid preparation• <i>In vitro</i> cell transfection for expression validation
	Immunization	<ul style="list-style-type: none">• DNA immunization via gold particle bombardment with gene gun• Test bleed by ELISA
	Cell Fusion & Screening	<ul style="list-style-type: none">• Animals selected for fusion based on titer• Primary screening by whole cell based ELISA• Customer can evaluate hybridoma supernatants and select the top clones for their application• <i>Additional screening options available</i>
	Subcloning, Expansion & Cryopreservation	<ul style="list-style-type: none">• Hybridomas are subcloned by limiting dilution according to the evaluation result from the customer, then expanded & frozen
	Monoclonal Antibody Production (optional)	<ul style="list-style-type: none">• Production of mAbs for each cell line with roller bottle culture• Purification• ELISA results

Flexible customization options available
Readily integrated downstream applications for Ab drug development

For more information on GenScript's DNA Immunization Service or to request a quote, please visit:
<http://www.genscript.com/DNA-immunization-service.html>
or contact our customer service representatives at 1-877-436-7274 or e-mail us at antibody@genscript.com.

www.genscript.com