ImmunoPrecise Antibodies Ltd.

www.immunoprecise.com



Single source provider of full-service therapeutic antibody development

ImmunoPrecise offers a comprehensive suite of solutions to rapidly deliver high-performing therapeutic antibodies.

ImmunoPrecise Antibodies (IPA) is an innovationdriven, technology platform company that supports its pharmaceutical and biotechnology company partners in their quest to discover and develop novel, therapeutic antibodies against all classes of disease targets.

IPA aims to transform the conventional, multi-vendor, product development model by bringing advanced high-throughput, data-driven technologies to its partners. IPA incorporates the advantages of diverse antibody repertoires with its therapeutic antibody discovery suite of technologies, to exploit antibodies of broad epitope coverage, multiple antibody formats, valency and size, and to discover antibodies against multiple/rare epitopes.

Operating from state-of-the-art laboratories located in Victoria, British Columbia, and in Oss and Utrecht in the Netherlands, the company brings resourceful solutions, adaptable approaches, and insightful collaboration to every program. IPA's single-source model, fast turn-around, and >95% success rate can greatly accelerate the critically important research of its global partners (Fig. 1). The expertise of IPA's dedicated technical team assures optimal work plans are followed for the discovery and development of custom, high-performing therapeutic antibodies.

A comprehensive suite of antibody discovery services

ImmunoPrecise's broad range of capabilities can seamlessly take a program from concept to (pre) clinic and allows for discovery in a wide range of species and strains that include rabbit, Ilama, human, and wild-type and transgenic mouse, rat and chicken models.

Some of the most in-demand technologies are IPA's unique immunization methods, the proprietary B cell Select and DeepDisplay discovery platforms, and robust, efficient antibody engineering and optimization protocols.

- Immunization technologies utilized include three genetic immunization options—gene gun, dermal tattooing, and hydrodynamic tail vein (HTV) injection—as well as whole cell immunization (ModiVacc) and an accelerated RapidPrime program.
- B cell Select allows the screening of an animal's entire immune repertoire and the selection of a desired antibody directly from B cells for earlier hit identification from a more diverse panel of antibodies compared with traditional technologies. Screening the entire population



Fig. 1| **ImmunoPrecise's single-source suite of solutions.** IPA's single-source, open-access biologics technology platform offers end-to-end solutions, empowering partners to discover and develop biologics from concept to clinical lead.

of B cells optimizes throughput and success rates while maintaining native heavy and light chain pairings.

- DeepDisplay is based upon the selection of antigen-specific recombinant antibody fragments from custom immune libraries from multiple species in a single-chain variable fragment (scFv) or single-domain antibody (VHH) format. Partners also have access to the IPA's proprietary in-house disease and naïve human or llama phage libraries.
- ImmunoPrecise's affinity maturation service can improve antibody affinities significantly, while the humanization approach results in antibodies with retained affinity and specificity.

Additional, complementary services that round out the company's end-to-end service model include protein expression and purification using the proprietary rPEx platform, affinity maturation, antibody characterization and optimization, developability studies, stable cell line development and cryopreservation services and storage.

Our infrastructure and experience in antibody discovery and protein manufacturing together with our streamlined project management enables us to help ensure our partners' success, no matter how challenging the disease or target

Stefan Lang, CBO, ImmunoPrecise Antibodies

Personalized antibody development

With more than 30 years of antibody development and protein manufacturing experience, and thousands of successful projects, IPA understands the importance of strong project management and communication skills. Skilled scientists develop custom, tailored programs to meet client needs and budgets, while designated project managers directly communicate and share data with the partner using secure, cloud-based platforms with 24/7 access. "Our infrastructure and experience in antibody discovery and protein manufacturing together with our streamlined project management enables us to help ensure our partners' success, no matter how challenging the disease or target," said Stefan Lang, CBO of IPA.

Partnering: leveraging the power of IPA services for antibody discovery

Talem Therapeutics, an ImmunoPrecise company, is focused on the discovery and development of next-generation, fully-human, monoclonal therapeutic antibodies to target multiple disease indications. Talem aims to accelerate novel, high-value, therapeutic antibody treatments to the clinic, by leveraging direct access to IPA's proprietary antibody discovery platforms and innovative technologies to rapidly develop products with greater chances of success. Talem has created a diverse internal pipeline and is open for flexible partnership and out-licensing opportunities.

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