Antibody Discovery CRO Buyer's Checklist

10 questions every pharma and biotech discovery team should ask before signing a CRO contract

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The 10 questions every pharma and biotech discovery team should ask before signing.

The marketing copy on most antibody-CRO websites looks almost identical. Underneath the copy, the actual delivery varies by an order of magnitude. This checklist is the one we hand to discovery leaders who ask us what to put in their next RFP.

Use it. Share it. Push back when you don’t get clean answers.

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1. What, exactly, are you doing — discovery, engineering, or production?

These are different businesses.

- **Production** (“2-week gene-to-antibody”) = you give them a sequence, they make protein.
- **Discovery** = you give them an antigen, they deliver lead binders.
- **Engineering** = you give them a lead, they optimize (humanization, maturation, de-immunization).

A vendor selling “fast antibody discovery” but quoting production-shop timelines is selling something else.

> **Ask:** “What does success look like under this contract, and at what step do you hand off?”

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2. What platform, specifically, and why for THIS target?

Platforms are not interchangeable. Standard options:

- Hybridoma (mature, cheap-per-clone, mouse-centric)
- Single-B-cell / microfluidics (preserves native pairing)
- Immune phage display (highest diversity, decouples panning from immunology)
- Naïve / synthetic phage or yeast display (when you can't immunize)
- Transgenic-animal platforms (fully-human mice, llamas)

"We do all of the above" is a generalist's answer. The right answer specifies the platform AND the reason it fits *your* target.

> **Ask:** "Given my target class (e.g., GPCR / ion channel / conserved soluble), which platform do you recommend and why?"

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3. How is your phage display library built?

Where 60–80% of useful diversity quietly disappears.

- **Standard 2-primer PCR** uses family-specific 5' primer mixes. Whole V-gene families amplify unevenly and drop out.
- **Diversity-preserving methods** (e.g., AbWiz's patented WizAmp™, US Pat. 9,890,414) use balanced first-strand primers + a single non-gene-specific amplification primer. Uniform family coverage.

> **Ask:** "Can you show me V-gene family coverage data from a recent library build?"

If they can't, the library hasn't been characterized.

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4. What's the realistic timeline, including a re-pan?

Everyone publishes the "ideal path" timeline. Reality includes occasional re-pans when the first round produces weak hits.

> **Ask:** - "What's your typical P50 timeline including one re-pan on similar targets?" - "What triggers a re-do on your side, and who pays for it?"

A six-month path that occasionally extends to eight is normal. A six-month path that extends to twelve because re-pans aren't budgeted is a yellow flag.

5. Who reviews my program scientifically?

CROs range from sales-led (PM pings the lab) to scientist-led (lead scientist is your direct contact).

> **Ask:** “Can I have a 30-minute call with the scientist who’d review my program — before we sign?”

If they can’t or won’t put a scientist on the call pre-contract, that tells you what you’ll get post-contract.

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6. What’s the IP posture?

For therapeutic programs, this clause matters more than the unit price.

> **Ask, in order:** - “Is this fee-for-service, royalty-free?” - “Are there milestones tied to clinical advancement?” - “Does your library IP attach to deliverables we keep?” - “Can you sign a freedom-to-operate representation?”

Royalty and milestone clauses sometimes appear in side letters or the MSA Schedule B rather than the SOW. Re-read everything.

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7. What’s the success criterion, and who decides it’s met?

Vague criteria (“we will deliver binders to your target”) favor the CRO. Insist on quantified, pre-defined criteria.

> **Specify in the SOW:** - K_D threshold (and by which assay — SPR, BLI, KinExA, etc.) - Specificity (off-target panel, counter-screens) - Functional readout if applicable (cell-based assay, neutralization) - Minimum diverse panel (e.g., ≥10 unique sequence families) - Who calls success: CRO, you, or both by pre-defined criteria

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8. Native-antigen capability?

For GPCRs, ion channels, multi-pass membrane proteins, and conformation-sensitive epitopes, panning against recombinant soluble antigen often fails.

> **Ask:** - “Do you offer native-antigen (cell-based, virus-like-particle, or nanodisc) panning?” - “Can you show published or anonymized examples of success on a target like mine?”

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9. How do you hand off to humanization and CMC?

Discovery is step one. A clean hand-off saves months.

> **Ask:** - “Do you do humanization in-house?” - “Do you deliver full sequence packages compatible with my preferred CDMO?” - “What’s your developability filter (stability, aggregation, isoelectric point, sequence liabilities)?”

If they treat hand-off as “not my problem,” expect friction.

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10. References, not logos.

Logos on a homepage don’t tell you anything. Ask for two references — one success, one re-do.

> **Ask:** “Can I talk to one client where the program worked, and one where you had to re-pan?”

The CRO’s handling of the re-do says more than the success.

Red flags

- Hero messaging built around speed, no claims about affinity or specificity
- No scientist names on the About page
- “We do everything”
- No published work or case studies
- Royalty or milestone clauses for therapeutic programs (unless priced in)

Green flags

- Named scientists with drug-discovery backgrounds, findable on LinkedIn and in publications
- Specific platform IP (patents, not vague claims)
- Published case studies with numerical outcomes
- Willingness to say “no” to your target if it’s not a fit
- Clear, fee-for-service, royalty-free terms

How AbWiz answers these questions

Question	AbWiz
Discovery / engineering / production	Discovery + engineering (humanization, STEM™ maturation)
Platform	RabWiz™ rabbit + immune phage display by default; matched to target
Library construction	WizAmp™ (US Pat. 9,890,414) — diversity-preserving
Timeline	Typical hit-to-lead < 6 months including re-pan budget
Scientific review	Lead scientist on every program, accessible pre-contract
IP posture	Fee-for-service, royalty-free, no library-IP encumbrance
Native-antigen panning	Yes (cell-based, VLP, nanodisc)
Hand-off	Full sequence package + developability filter; CDMO-ready
References	Available under MNDA

Want a sanity check on a specific CRO proposal?

We'll read the scope and IP terms, tell you what we'd ask for, and stay quiet about ourselves unless you ask. No pitch, no obligation.

Book a 30-minute scientific consult: abwizbio.com/contact
