

Do you need an
alternative to
your mAbs?



Think
APTAMERS!

Contact us:

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28035 Madrid, Spain
+34 654 58 97 17
www.aptusbiotech.com



Aptamers

Your partner for success

Our Technology

The selection of aptamers is an in vitro process carried out using the SELEX method (Systematic Evolution of Ligands by Exponential Enrichment), which consists of successive binding-separation-amplification cycles. In this process, heterogeneous populations of oligonucleotides with random sequences are used and specific aptamers are identified.



Selection of aptamers with our team of more than 20 years of experience

Aptamers as substitutes for mAbs

Aptamers' Advantages	Costs	Chemical synthesis
	Safety	Non-immunogenic
	Long half-life	Reversible denaturation
	Range	To a wide number of targets
	Other	Smaller size, stability and reproducibility



Specific recognition and stable binding

Aptus Biotech has developed its own selection systems that allow optimization of the process, identifying the best aptamers for each target.

For further information, contact us at: aptusbiotech@aptusbiotech.com

or find more at:
www.aptusbiotech.com



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Our Aptamer Selection Services



- **Consulting and planning.** We help you designing your aptamer selection service. Depending of your target and/or final application we offer different selection strategies for the best results.
- **Development of the project in constant contact with the client.** Our team will be always connected with the client for a continuous monitoring of the procedure.
- **Bioinformatic analysis of massive population sequencing.** We make use of NGS and the most advanced bioinformatic tools to analyze the selected population
- **Reports on the affinity, sequence and structure of your aptamer.** We analyze the aptamer candidates obtained by NGS by *in vitro* and *in silico* procedures
- **We modify aptamers to suit your needs.** Depending of your final application we can explore the use of different chemical modifications as well as the improvement of the aptamer sequence.
- **We advise you on the use of your aptamer in therapy.** Based on our previous experience, we can advise in the use of vehicles for best performance in therapy applications.
- **Production in GMP and GMP-like.** We advise you in the use of the aptamer with the best purification needs.

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Explore our extensive range of extra options for your development

- ***In vitro* characterization assays** by ELONA with Kd calculation as well as specificity and kinetic studies by SPR
- ***In vitro* stability assays.** If your final application is in therapy, we help you analyzing the stability in:
 1. In human, rat and monkey plasma (NHP);
 2. Stability against nucleases (λ -exonuclease and DNase I)
- **Plasma protein binding** study by AKTA
- ***In vitro* toxicity:** Evaluation of the cytotoxicity of aptamers by quantifying MTT and LDH in cell cultures.
- **Internalization assays** for specific cytoplasmatic targets.
- **Activity Assays in cell cultures** including the effect of these aptamers on the formation of mammospheres.
- **Biodistribution assays** (5 tissues) for *in vivo* experiments.



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