

Creative Peptides Releases Custom PNA Probe Services for Specific Research Needs

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New York City, New York Aug 8, 2022 ([Issuewire.com](https://www.issuewire.com)) - Creative Peptides today released custom PNA probe services for clients' specific research needs. As a leading biomedical technology company engaged in PNA studies, the company can meet customers' requirements by providing a high level of quality control for the design and synthesis of each custom PNA probe project.

Peptide nucleic acids (PNAs) are unique oligonucleotide mimics with strong specific recognition ability and excellent chemical and biological stabilities. Experimentally, PNA used as a probe has high binding specificity, and a 15-mer PNA probe can replace a set of longer DNA probes. Moreover, PNA probes have a low background signal and favorable compatibility with a variety of reporter molecules and fluorescent dyes, including luciferin, rhodamine, cyanine, and Alexa dyes. As a result, these traits make PNA probes widely applied in disease diagnosis, cytogenetic analysis, histochemical in situ hybridization, as well as microbiological analysis.

Creative Peptides has been supplying various PNA probes such as CGA repeat probes, centromere probes, and telomere probes. In response to the growing need for PNA probes, the company also provides [custom PNA probes](#) based on its extensive experience in custom PNA synthesis and supreme probe design schemes, which can be self-reported and quencher-labeled.

Self-reported PNA probe

Self-reported PNA probes, or fluorescently labeled PNA probes, will not emit fluorescent or self-quench when there is no complementary target, which can effectively omit the separation and washing steps after probe hybridization.

Q-PNA PCR

A universal quencher-labeled PNA (Q-PNA) is hybridized at the 5' end of the primer labeled with Fluro, which will quench fluorescence upon annealing. During PCR, Q-PNA is replaced by the incorporation of primers via DNA polymerase into the amplicon, and the dye-labeled fluorescence is released when Q-PNA quenches the excessive primer.

So far, scientists at Creative Peptides can design and synthesize diverse PNA probes for research regarding genome, centromere, telomere, and infection tests. With years of exploration and expansion, the diversity of its PNA probes is expected to grow rapidly, thereby expanding the application ranges of PNAs.

About Creative Peptides

Peptide nucleic acid (PNA) research is one of Creative Peptides' major focuses. Its higher affinity, better discrimination than natural oligonucleotides, and its complete stability towards nucleases as well as proteases enable the use of PNA for many applications, including FISH probes for telomere, centromere, gene-specific probes, infection tests, anti-sense reagents, microarray probes, and miRNA inhibitors. However, PNA poses new challenges, e.g., poor aqueous solubility, the tendency to bind

hydrophobic surfaces non-specifically, and the formation of aggregates in certain PNA molecules. Nevertheless, Creative Peptides can modify the PNA backbone & nucleobase and synthesize a variety of PNA products to meet clients' requirements.

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