



## POLYPLEX FAQs

Frequently Asked Questions about the PolyPlex Oligonucleotide Synthesizer

**1. What is the minimum and maximum number of samples per run:**

Answer: Sample range: 1 - 96

**2. What is the maximum length of an oligo?**

Answer: Length of oligo is dependent upon pore size of solid support (Controlled Pore Glass bead). Most people using the PolyPlex synthesize oligos up to 30 bases. The longest oligo that can be synthesized is 50-60 bases.

**3. What is the maximum scale?**

Answer: 1 umole is maximum scale and is synthesized on columns rather than in microtiter plates.

**4. How is the purification performed.....is it desalting?**

Answer: Cleavage of oligo from support, desalting and purification is done offline. User has the option to remove or not remove the DMT group from the last base of the oligo.

**5. What are the main features and benefits of the PolyPlex?**

Answer:

- a. The PolyPlex was the first commercial 96-well plate format oligo synthesizer.
- b. It has a compact footprint.
- c. The PolyPlex generates 20-mer oligos in less than 3 hours
- d. The PolyPlex has a coupling efficiency of >99%
- e. The cost per oligo is less than \$0.10 per base - based on list price reagents
- f. The PolyPlex can accommodate scale of synthesis up to 200 nmol in plates / umol using columns
- g. The PolyPlex has up to 8 Amidite positions
- h. The Polyplex has industry standard bottle mounts
- i. Low Argon consumption – the PolyPlex can run up to 24 hours continuously per tank of Argon.
- j. The PolyPlex can perform the simultaneous synthesis of 96 different Oligos
- k. The software offers simple protocol editing
- l. Robust automation and complete control allows for unattended overnight runs
- m. The Tritel is monitored at any cycle throughout the process
- n. Instant Run analysis yields volume use and cost estimation
- o. Multi-Level user access - Editor, High Level, Basic Level
- p. The cycle times are below 9 minutes per base

**6. How many different labels can be built into one oligo using the PolyPlex?**

Answer: User has option for 4 additional amidite reservoirs, thus giving 4 additional labels per run. PPX comes with 4 amidite positions for A,C, G and T as standard configuration.

**7. Does the Polyplex need to be operated in a separate room because of any harmful gases?**

Answer: It does not need to be in a separate room if you user has vent lines in the lab or a large hood.