eurofins | Genomics

TubeSeq Service

Sample Submission & Ordering Guide.

Sample Preparation & Submission.

- Templates should be provided in a volume of **15 µl for 1–4 reactions resp. 20 µl for 5–8 reactions** with either of the concentrations given in below table.
- If you send us **premixed samples, add 2 µl of primer** with a concentration of 10 pmol/µl (10 µM).
- The **total volume of the premixed sample must be 17 µl**.
- Use **1.5 ml safe-lock tubes** for your samples and primers.
- Do not tape or wrap tubes with parafilm. Safe-lock tubes offer perfect sealing and evaporation protection.
- **Label your sample tubes** with our TubeSeq Labels or Tube Labels.
- Use our Tube Labels for your enclosed primers.

Sample concentration & volume

Sample type	Product length	Sample conc.	Vol. 1–4 rct.	Vol. 5–8 rct.
Plasmid DNA	<30 kbp	50-100 ng/µl	15 µl	20µl
BAC/PAC/Cosmid DNA	30-200 kbp	200-1000 ng/µl	15 µl	20µl
Purified PCR Products	150-300 bp	1 ng/µl	15 µl	20µl
	300-1000 bp	5 ng/µl	15 µl	20µl
	1000-3000 bp	10 ng/µl	15 µl	20µl
Unpurified PCR Products	150-300 bp	4 ng/µl	15 µl	20µl
	300-1000 bp	10 ng/µl	15 µl	20µl
	1000-3000 bp	20 ng/µl	15 µl	20µl

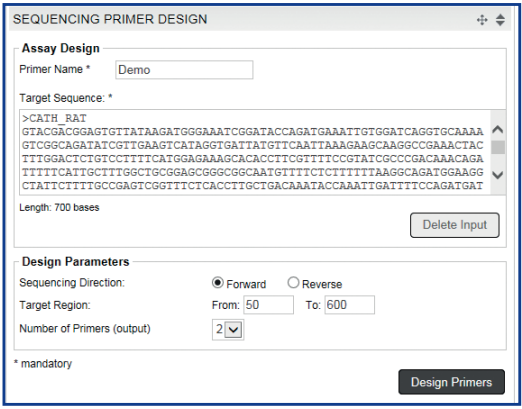
Quantify your template concentration via agarose gel or a photometer to ensure accurate results.

Sequencing Primers.

Optimum primer conditions

- The optimum primer length is between 16-25 bases.
- Primer melting temperature (Tm) should be 50-62 °C.
- The GC content of the primer should be 35-60 %.
- Ideally one G or C should be located at the 3' primer end.
- The number of 3' Gs or Cs should not exceed 2 Gs or Cs.
- If possible, avoid >3 identical bases in a row in the sequence.
- Primers must not contain phosphorylation or fluorescent dyes.

Use our free **Sequencing Primer Design Tool** to design the optimum sequencing primers.



Primer concentration & volume

- Exactly **10 pmol/µl** primer concentration is required per sequencing reaction.
- Each primer must have a **total volume of 15 µl** (double distilled water or 5mM Tris-HCl).
- **5 µl of primer volume** is required for every additional sequencing reaction.
- Concentration of **primers with wobble bases** must be calculated according to the following formula:
  $\mathbf{n^X \times Conc_{Primer}}$

n = number of bases within a wobble according to IUPC code; X = number of wobbles within the primer sequence. E.g. 1 V (AGC) = 31 x 10 pmol/µl; 2 V (AGC) (AGC) = 32 x 10 pmol/µl

Shipping Options.

Use our **metal sample box** or **tube bags** for secure shipping of your samples.

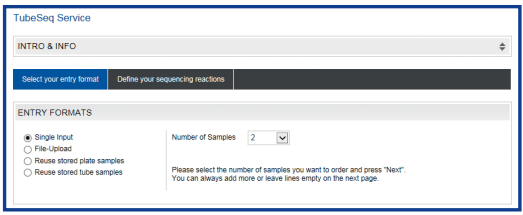
Drop it in your nearest **DropBox** for **free pick-up.**

Alternatively use our **Sample Bag (padded envelope)**, which you may have ordered online already.

If you have a postal service in your institute or company, **address stickers** with our sequencing lab address are available online, free of charge.

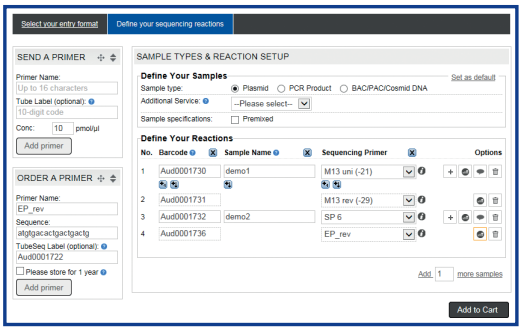
Online Ordering.

Go to the **TubeSeq Service** order page on eurofinsgenomics.eu and select either single input or file-upload as entry format.



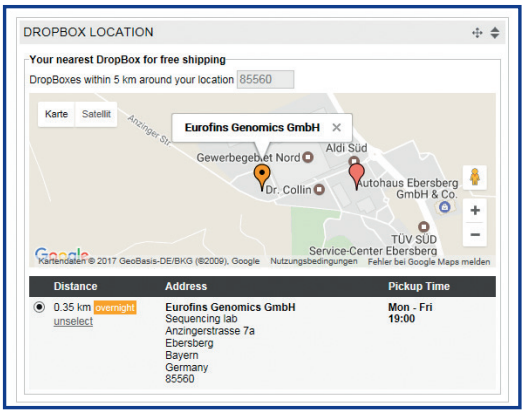
On the next step you can:

- Select your **sample type and additional service**.
- Select "premixed" when the DNA already contains the primers.
- **Add primers** which you want to **enclose** or which should be **synthesised** by us.
- When you selected single input as entry format, specify the **additional reactions per sample** by clicking on the "plus icon"; **up to 8 reactions** per sample are possible.
- If you are uploading a sample sheet, the additional reactions with barcodes and primers are prepopulated.
- **Enter the first barcode you sticked on your tube**; the "auto-fill" icon are filling the next barcode fields sequently.



Save your tube sequencing reactions in your cart.

Select your **DropBox location** during checkout or in advance under "**My Dropboxes**".



In case you do not have a DropBox location nearby you, make use of our alternative shipping options.

Select your preferred **analysis options**, result **file types** and **email notifications** for each order during checkout or any time under "**My Preferences**".