Tinzyme Co., Limited

Email: sales@tinzyme.com Website: www.tinzyme.com
Tel: +86-755-86134126 WhatsApp/Facebook/Twitter: +86-189-22896756

Oligo

Product Number: RX097197

Dilution and preservation of oligo

Olivo DNA, which is vacuum freeze-dried and characterized as a thin film or powder, is attached to the inner wall of a centrifuge tube. Before dilution, please centrifuge the primer tube (1000r/min~3000r/min) for 10 seconds to allow the oligo DNA to aggregate to the bottom of the tube. Be careful to open the tube cap to prevent the primer powder from flying and causing oligo DNA loss.

After adding an appropriate amount of TE buffer, cover the tube cover and mix well with vortex shaking to fully dissolve oligo. It is recommended to dilute the primers in TE (10mM Tris HC1, pH 8.0,1 mM EDTA) solution with a concentration higher than 10μM and store them at -20℃. For example, if you obtain a 2nmole primer tube, you need to dilute it to 100μM. 2nmole=(2*1/1000) μmole=0.002μmole. So it is necessary to add TE or ultrapure water: 0.002μmole/100μM=0.00002L=20μL.

During use, minimize the number of freeze-thaw cycles for the dissolution of oligo to minimize its degradation. Under the condition of -20℃, the dry powder primer can be stably stored for 2 years, and the primer solution can be stably stored for more than 6 months.

The oligo we provide is quantitatively packaged using a UV spectrophotometer at a wavelength of 260nm. The molecular weight, OD number, nmole number per OD, total number of nmoles per primer, Tm value and other parameters of each oligo can be found in our synthesis report.

1. The formula for calculating molecular weight is:
   [{(#A×313.2)+(#C×289.2)+(#G×329.2)+(#T×304.2)+(#u×290.2)+(#I×252)+(#N×309) + (#B×307.5) +(#D×315.5)+ (#H×302.2) + (#K×316.7) + (#M×301.2) + (#R×321.2) + (#S×309.2)+ (#V×310.5) + (#W×308.7 + (#Y×296.7)+}-62]+1
2. The formula for calculating Tm value is:
   2.1. If the base number is greater than 13, Tm=64.9+(41*GC%) - (672\primer length);
   2.2. If the base number is less than 14, Tm=[(% GC*× # total base)×4]+[(1.00-% GC *)×primer length]×2

   Note:The Tm value in the product report provided by our company is calculated based on the assumption that the final primer concentration is 50nM and the ion concentration in the reaction system is 50mM (Na+). Therefore, the Tm value is for reference only.

The Correct Selection of Oligo Purification Level

Our company currently provides primer purification methods including RPC purification, PAGE purification, and HPLC purification. Please order the appropriate primer purity level according to the experimental needs. The following table lists some downstream applications that require reference to the purification level of oligo.

Application	General PCR amplification	DNA sequencing	Cloning,subcloning, directed mutagenesis, etc	Gene construction (whole gene synthesis)	Antisense nucleic acid
Purification level requirements	RPC	PAGE	PAGE, RPC	PAGE, RPC	PAGE, HPLC

The 5 'and 3' ends of the oligo we provide are both hydroxyl groups and can be directly used for PCR. If modification groups need to be labeled, additional modifications are required.

Common merger base codes: M=A\C; R=A\G; W=A\T; S=G\C; Y=C\T; K=G\T; V=A\G\C; H=A\C\T; D=A\G\T; B=G\C\T; N=A\G\C\T