

# 18S rRNA Control kit (Yakima Yellow®-Eclipse® DarkQuencher) Technical Data Sheet

## Reference: RT-CKYD-18S

Products and procedures described in this protocol are intended for research purposes only.

### Storage conditions

The 18S rRNA Control kit should be stored at -15 °C to -25 °C in a constant temperature freezer. When stored under these conditions the reagents are stable for 1 year.

### Kit contents

The 18S rRNA Control kit contains enough reagents for up to 250 - 50 µl reactions.

Reagent	Volume	Description
18S primer mix (plain cap)	750 µl	One tube of primer mix 10 µM
18S probe (orange cap)	250 µl	One tube of 6.25 µM Yakima Yellow®-Eclipse® DarkQuencher probe
Human Xsomal DNA (red cap)	500 µl	One tube of Human male chromosomal DNA at 30 ng/µl in TE*

\* 30 ng/µl correspond to copies of 10000 genome copy of 18S (1,5 to 2 million copies of the gene depending on the individual).

The 18S rRNA Control kit Yakima Yellow®-Eclipse® DarkQuencher should be combined with Eurogentec Reverse Transcriptase core kit (first strand reaction kit) reference RT-RTCK-05 followed by Eurogentec qPCR MasterMixes, reference RT-QP2X-03 or qPCR Core kits, reference RT-QP73-05. Alternatively a One step RTqPCR MasterMix Plus, reference RT-QPRT-032X can also be combined with the Control kit. Alternatively a qPCR MasterMix (RT-QP2X-03) can be combined with the control kit for quantitation of gDNA.

The kit is available with a FAM-TAMRA labelled probe (RT-CKFT-18S) detected in channel for singleplex qPCR and a Yakima Yellow®-Eclipse® DarkQuencher labelled probe (RT-CKYD-18S) detected in channel 2 for multiplex qPCR.

### Procedure

#### We strongly recommend preparation of a reaction mix

Each 50 µl reaction requires the addition of 3 µl of 18S Primer Mix (plain cap) and 1 µl of 18S Probe (orange cap).

If required a mix containing the appropriate amount of both primer and probe can be prepared. Dispense 4 µl of this mix per 50 µl reaction.

Final concentration of primers is 600 nM.

Final concentration of probe is 125 nM.

Prepare an appropriate dilution series of chromosomal DNA in TE or PCR grade water and a no template control.

The 18S rRNA Control Kit has been developed to detect the human, rat, mouse or rabbit 18S ribosomal RNA gene (cDNA/gDNA). The obtained amplicon is 121 bp in length, to guarantee an efficient PCR.

Program the Real-Time thermocycler using the following recommended parameters:

<b>HotGoldStar activation</b>	10 min. 95 °C
<b>40 Cycles</b>	15 sec. 95 °C 1 min. 60 °C
Hold at 25 °C forever	

If UNG is used, program the Real-Time thermocycler using the following recommended parameters:

<b>UNG activation</b>	2 min. 50 °C
<b>HotGoldStar activation / UNG incativation</b>	10 min. 95 °C
<b>40 Cycles</b>	15 sec. 95 °C 1 min. 60 °C
Hold at 50 °C forever	

## Other Eurogentec Control Kits available:

Eurogentec has developed control kits that can be used for either cDNA or cDNA and gDNA.

18S rRNA Control Kit  
human, rat, mouse, rabbit cDNA and gDNA  
very high expression level  
RT-CKYD-18S or RT-CKFT-18S

23S rRNA Control kit  
*E. coli*  
very high expression level  
RT-CKFT-23S

28S rRNA Control Kit  
human, mouse cDNA and gDNA  
very high expression level  
RT-CKYD-28S

$\beta$ -actin Control Kit  
human cDNA and gDNA  
high expression level  
RT-CKYD-ACTB

GAPDH Control kit  
human cDNA  
high expression level  
RT-CKYD-GAPD

$\beta$ -2-microglobulin Control Kit  
human cDNA and gDNA  
high expression level  
RT-CKYD-B2M

Ubiquitin C Control kit  
human cDNA and gDNA  
high expression level  
RT-CKYD-UBC

Phospholipase A2 Control Kit  
human cDNA  
medium expression level  
RT-CKYD-YWHAZ

Hypoxanthine phosphoribosyltransferase Control Kit  
human cDNA  
medium expression level  
RT-CKYD-HPRT1

Ribosomal protein L13a Control Kit  
human cDNA  
medium expression level  
RT-CKYD-RPL13A

Succinate dehydrogenase complex Control Kit  
Human cDNA  
medium expression level  
RT-CKYD-SDHA

TATA box binding protein Control kit  
human cDNA  
low expression level  
RT-CKYD-TBP

Hydroxymethyl-bilane synthase Control Kit  
human cDNA  
low expression level  
RT-CKYD-HMBS

Further information available through Eurogentec web site, [www.eurogentec.com](http://www.eurogentec.com).

- Troubleshooting Guide for qPCR and RTqPCR (under the "Technical Resources / Troubleshooting Guide" section).

- Primers and probe design (please refer to our Troubleshooting Guide).

- "Your One-stop-shop Real-Time qPCR supplier" handbook (under the "Technical Resources / Documentation" section).

- MSDSs, (under the "Technical Resources / MSDS" section)

- Certificates of Analysis (please contact us).

**For any further information required please contact our Customer Help Desk:**

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