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LightUp Probe Technology Features & Benefits

- Superior specificity, lowered risk of false positives between strains
- Superior sensitivity, lowered risk of false negatives
- Robust & reliable reagents, easy industrial adaptation
- Open technology for use on most Q-PCR instrument, fits most laboratories

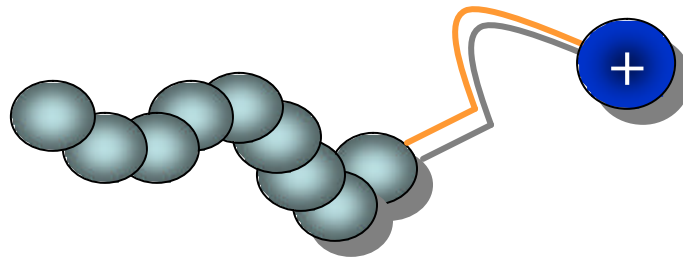


LightUp Probe Technology Features & Benefits

- Short assay start-up time, regardless of instrument platform
- Very rapid reagent kinetics fits better with new rapid PCR and enables more analyses per hour of operation
- Superior reproducibility, reliable results
- Superior accuracy provides advantage e.g. in viral load determination

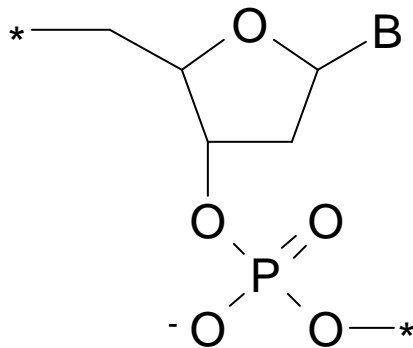
The LightUp Probe

Fluorescent reporter group



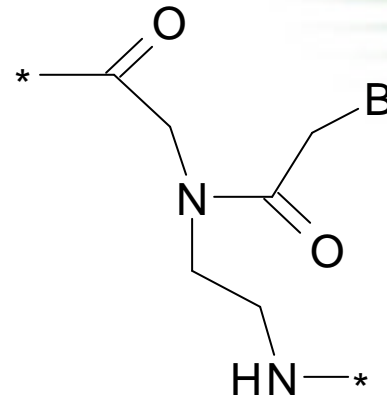
Sequence recognizing element

Structures of DNA and PNA



DNA

Charge **-1**

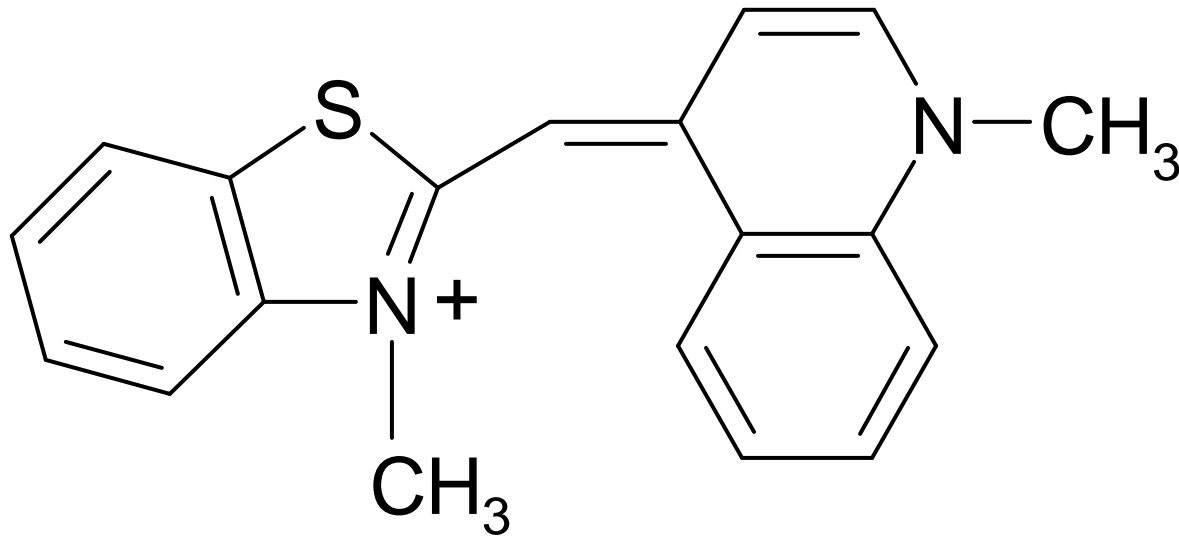


PNA

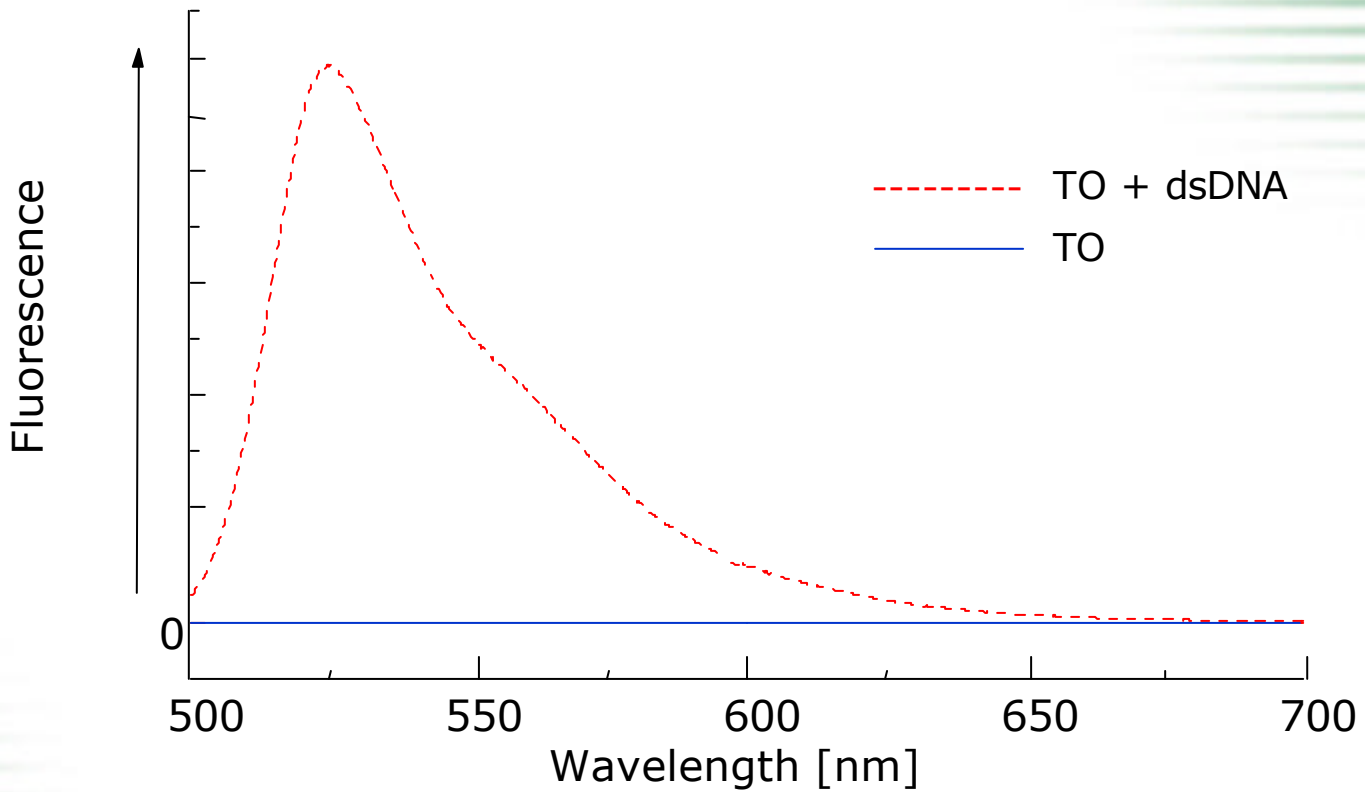
Charge **0**

Reporter Group

Thiazole Orange-TO derivative



Large Fluorescence Enhancement

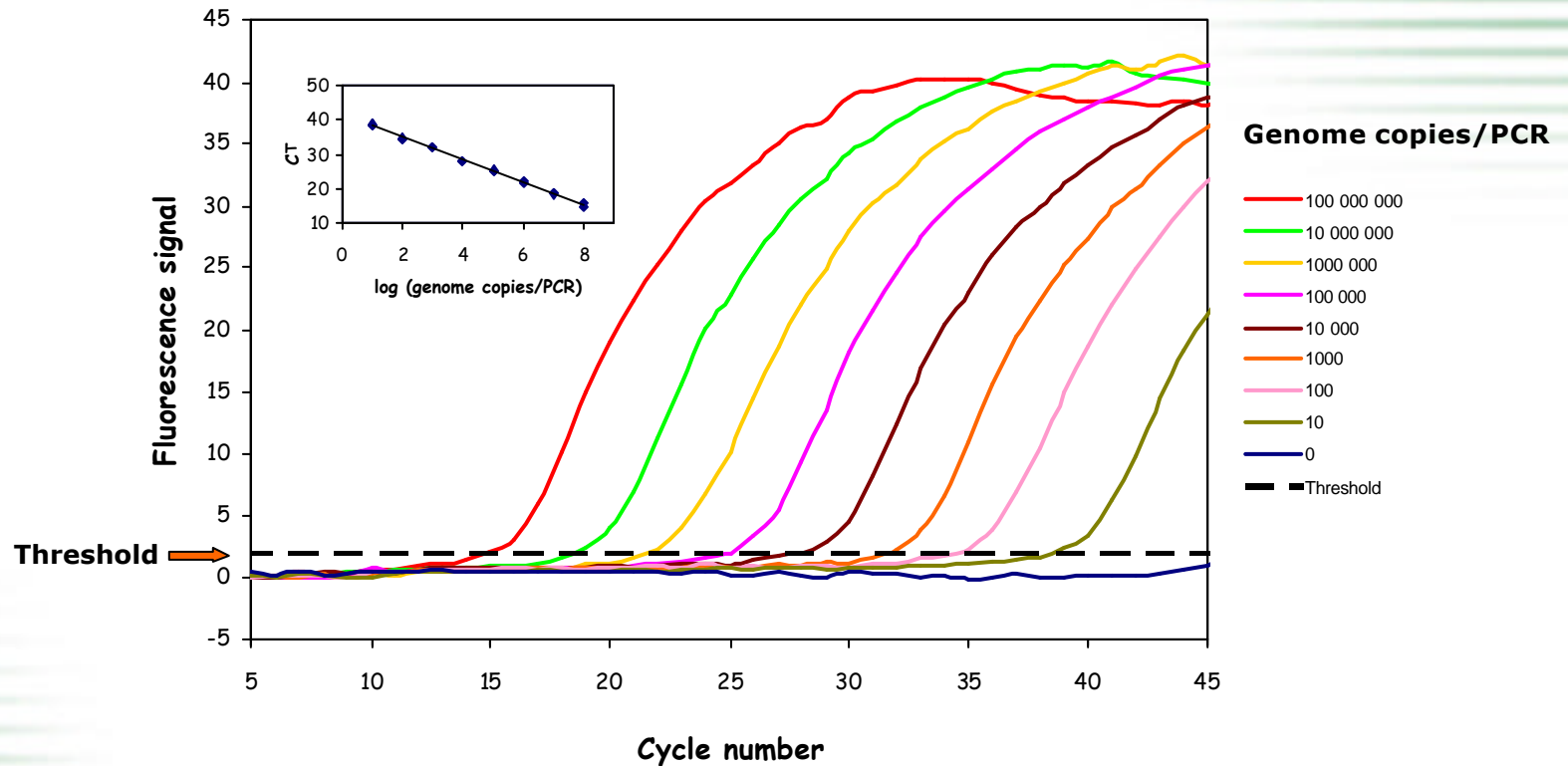


PNA...

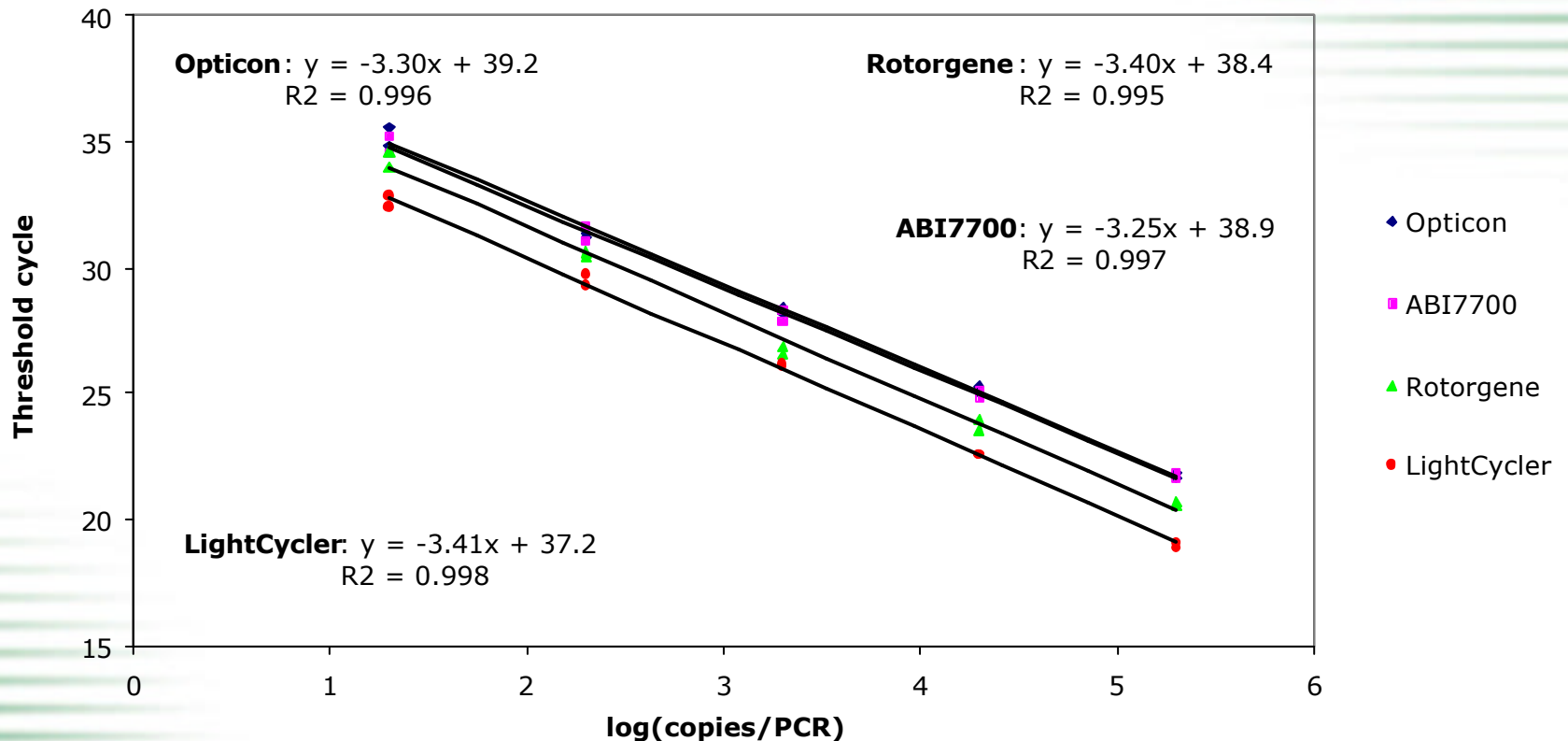
- is not degraded by nucleases, proteases or peptidases
- binds faster and stronger to DNA (RNA) than DNA (RNA) itself
- has less propensity for binding to wrong nucleic acid sequences than have natural nucleic acids

⇒ **Shorter PNA probes can be used for specific binding**
Probing can be carried out in high-speed real-time PCR applications

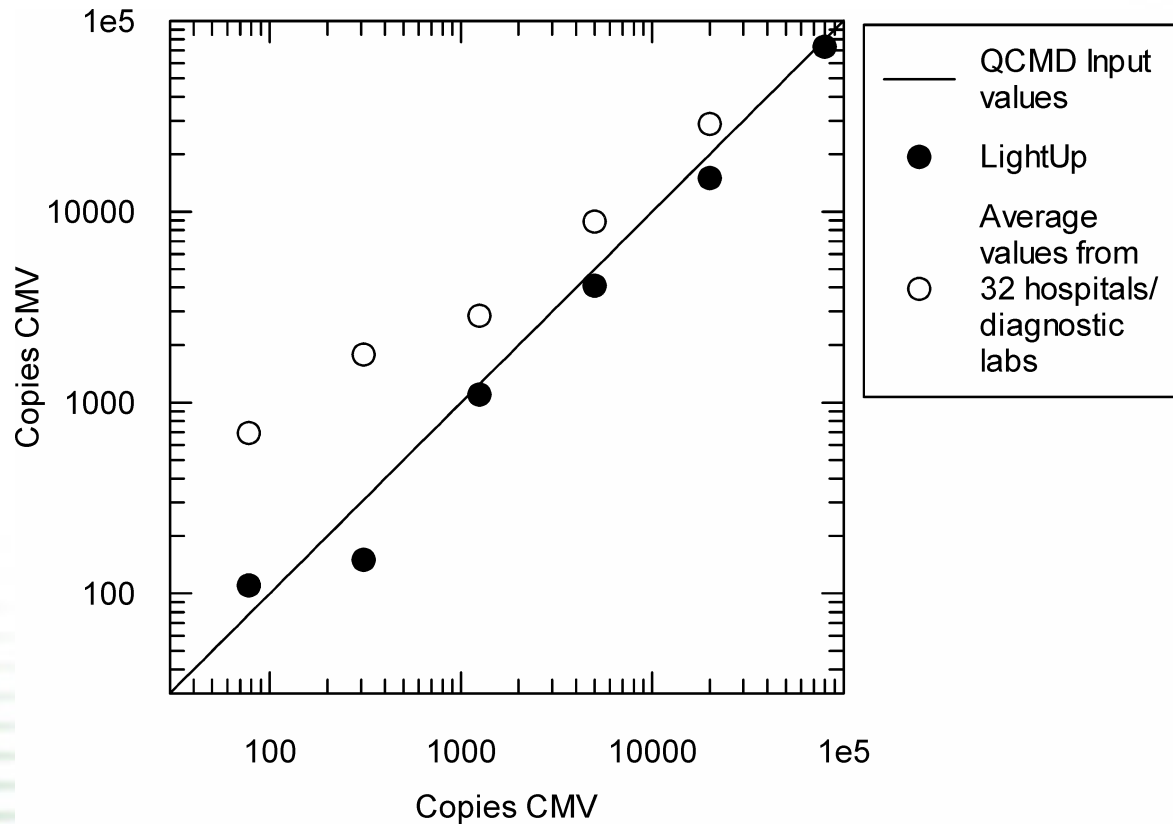
Real-Time PCR with CMV LightUp Probe



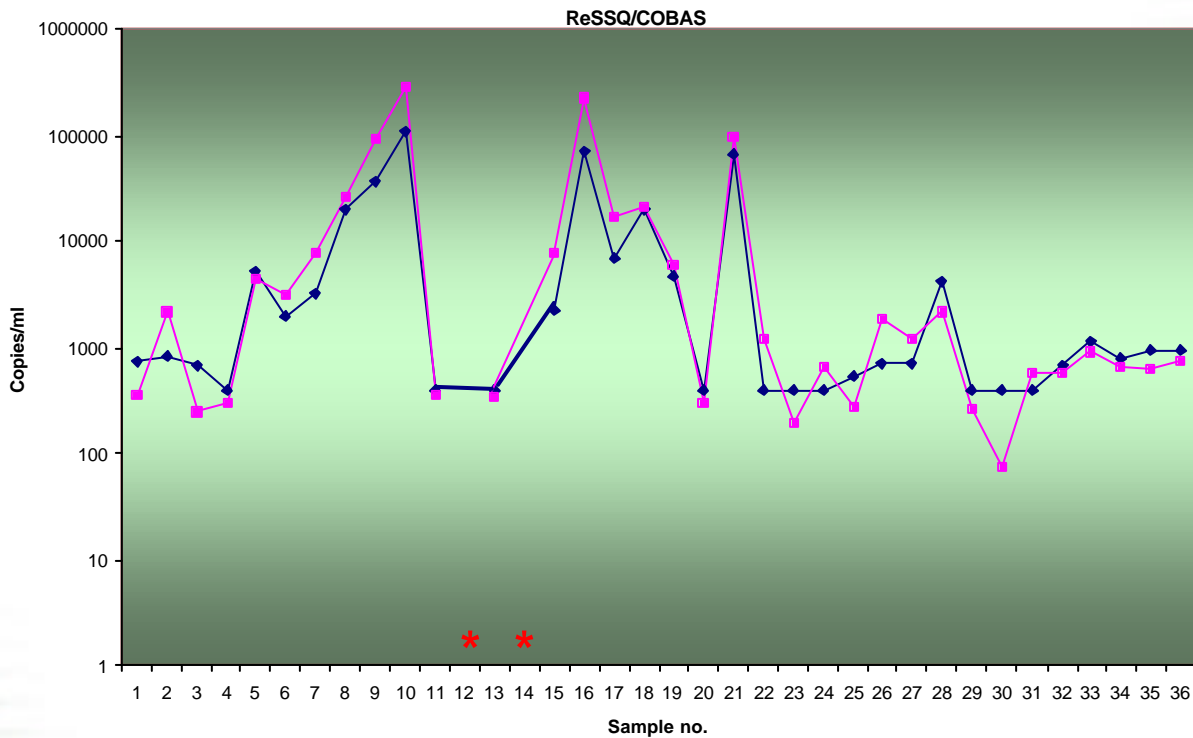
Platform Independency



QCMD Panel Comparison



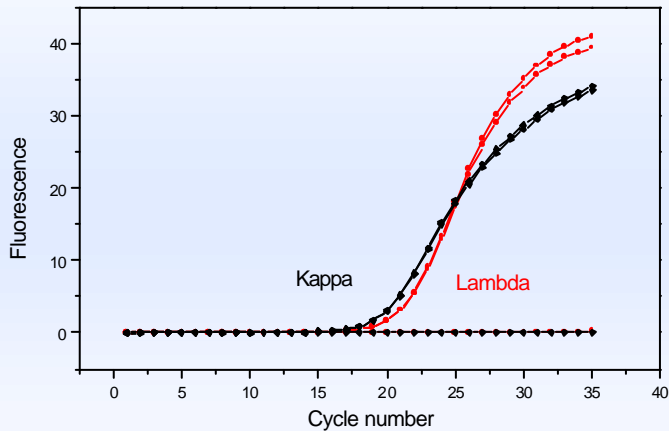
Clinical CMV data from Karolinska Hospital - Comparison with Roche COBAS Amplicor



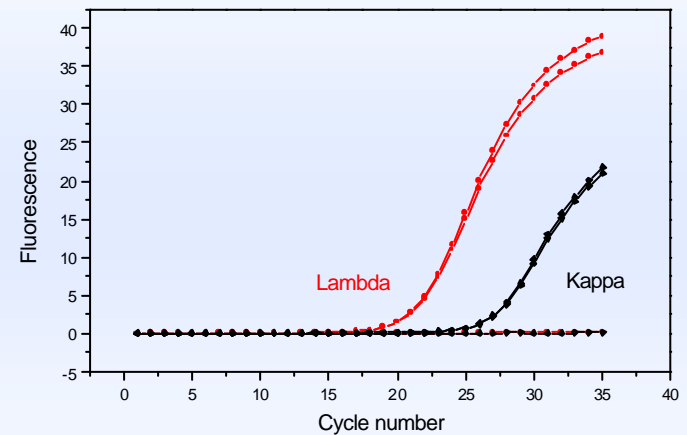
◆ COBAS [copies/ml]
 ■ ReSSQ [copies/ml]

* Sample 12 and 14, negative with ReSSQ but <400 copies/ml with COBAS. Confirmed negative with other methods.

Kappa/Lambda mRNA Ratios in Diagnosis of B-cell Lymphoma

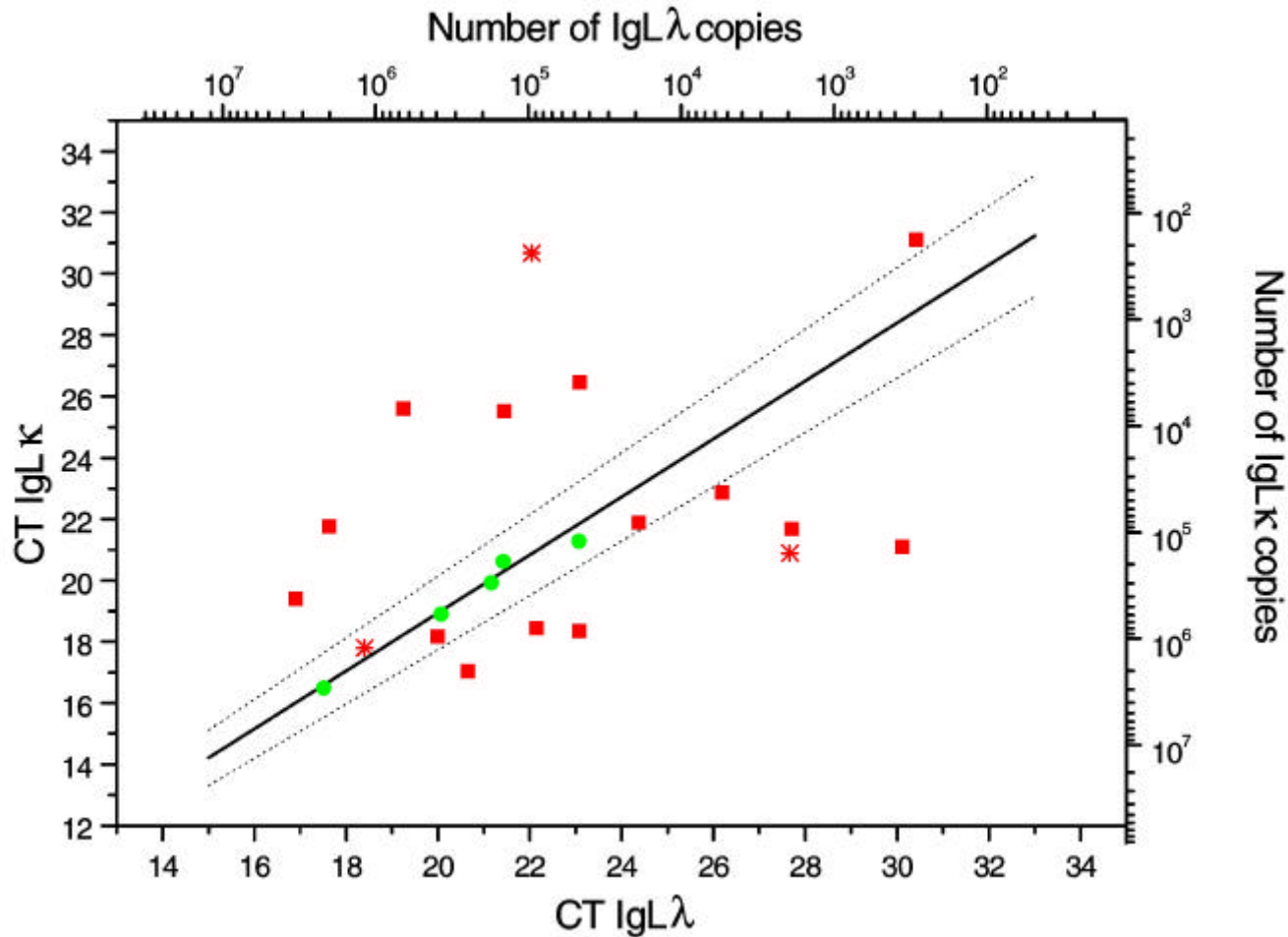


Healthy individual



Individual with B-cell lymphoma

Kappa/Lambda mRNA Ratios in Diagnosis of B-cell Lymphoma





Thank you for your attention!