

Reliable performance under variable conditions

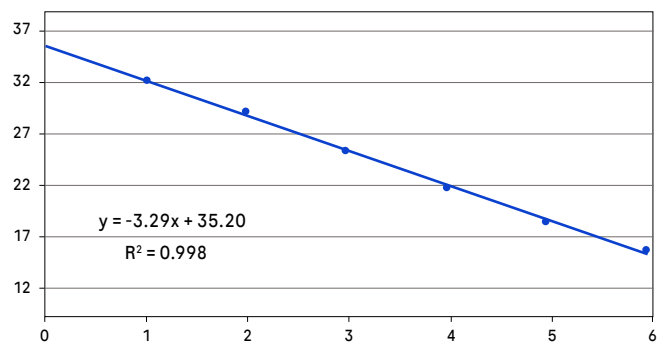
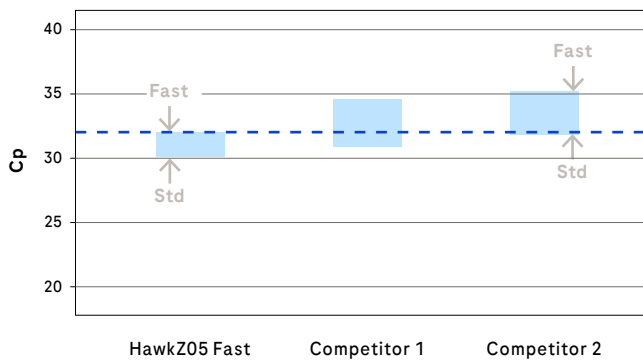
Lyo-ready raw materials for
molecular diagnostics tests



The design of reagents sets the pace for molecular diagnostics

Rapid, high-performance analyses to support diagnosis and treatment decisions have become a cornerstone of medicine in our globalized society. Advanced molecular testing not only extends the reach of modern medicine across diverse clinical settings, but also underpins our collective understanding and management of global public health.

Assays for molecular diagnostics must work reliably, delivering accurate results under variable handling and environmental conditions. Modern requirements are transport and storage at ambient temperature and without complex cold-chain logistics. Utilizing lyo-ready reagents designed for these specific challenges is key to achieving these requirements.



01

Speed – fast reactions for short turnaround

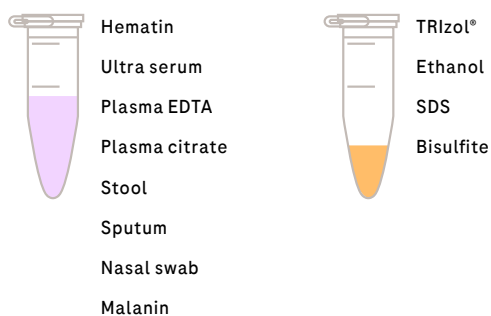
Roche CustomBiotech enzymes enable short extension times. Compared to enzymes from other providers, HawkZ05 Fast shows earlier Cp values with a short reverse transcription step (5 min) and a smaller shift in Cp value between the standard and the fast PCR protocol.*

02

Sensitivity – detect targets with low copy number

Roche CustomBiotech enzymes exhibit excellent reaction efficiency and linearity down to low target copy numbers. NxtScript 2G reverse transcriptase allows detecting from 1000 ng RNA down to 0.01 ng per reaction (a difference of 6 orders of magnitude).*

Patient sample or sample collection tubes

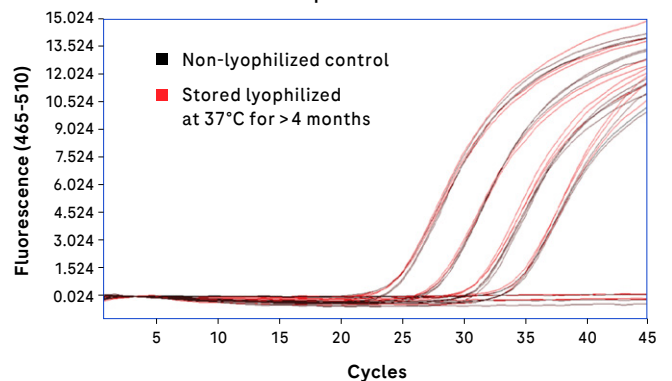


03

Robustness – perform even in the presence of inhibitors

Roche CustomBiotech lyo-ready enzymes have been tested with a broad range of inhibitors inherent to liquid biopsies, tissues or standard sample preparation methods.*

Amplification curves



04

Direct dry down – easier production, stable performance

Without dialyzing, Roche CustomBiotech enzymes like KAPA3G HotStart DNA polymerase can be lyophilized directly and show the same performance as non-lyophilized controls even after lengthy storage at warm temperatures.*

* Data on file at Roche

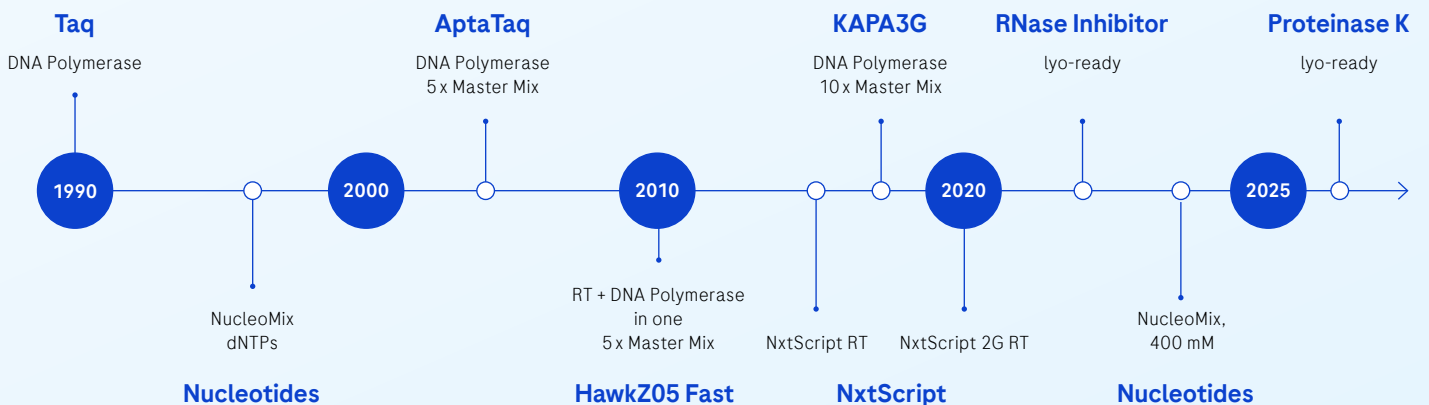
Roche CustomBiotech lyo-ready reagents: a quick overview

Product	DNA	RNA	Master mix	HotStart	Concentration (U/ μ L)	% glycerol (v/v)	Comments
Taq DNA Polymerase	yes	-	-	-	50	≤ 0.1	-
KAPA3G HotStart DNA Polymerase	yes	-	10x	Antibody-mediated	30	≤ 0.1	Designed for speed and inhibitor tolerance; suitable for probe-based PCR
AptaTaq DNA Polymerase	yes	-	5x	Aptamer-mediated	50	≤ 0.1	2 additional formulations: LDx is proven free of contaminating DNA; delta exo is N-terminal truncated and suitable for mismatch detection
NxtScript 2G Reverse Transcriptase	-	yes	-	-	500	≤ 0.1	Highly concentrated and inhibitor-tolerant; enables RT steps at up to 70°C
HawkZ05 Fast DNA Polymerase	yes	yes	5x	Aptamer-mediated	500	≤ 0.1 master mix: 0.5	Reversible hot start DNA polymerase for fast one-step RT-PCR
RNase Inhibitor	-	yes	-	-	400	≤ 0.5	Highly concentrated to protect against RNase degradation
Proteinase K, lyo-ready	yes	yes	-	-	40 - 48 mg/ml	≤ 0.1	Highly concentrated Proteinase K for protein digestion in DNA or RNA isolation
NucleoMix, 400 mM	yes	-	-	-	100 mM of each nucleotide	-	Highly concentrated nucleotide mix (dATP, dCTP, dGTP, dTTP)

Your partner beyond enzymes

The CustomBiotech offering provides more than just high-quality components; it delivers deep expertise rooted in Roche molecular diagnostics to ensure your business continuity. We offer premium reagents designed to help you develop streamlined, high-speed assay protocols. Our solutions are engineered to tackle both difficult targets and complex matrices with ease.

Furthermore, our reagents are manufactured in state-of-the-art facilities under rigorous quality control standards. By integrating CustomBiotech materials into your workflow, you inherently build superior quality and regulatory compliance into your final assay.



Regulatory disclaimers, warranty limitations and legal notes

are listed on the respective product page on custombiotech.roche.com

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Published by

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