

# Optimer<sup>®</sup> reagent for COVID-19 diagnostic development



- ✓ Detects Omicron and all other WHO variants of concern
- ✓ Biosensor and LFD platform compatible
- ✓ Highly consistent manufacture through controlled solid phase synthesis
- ✓ Licensable for diagnostic development

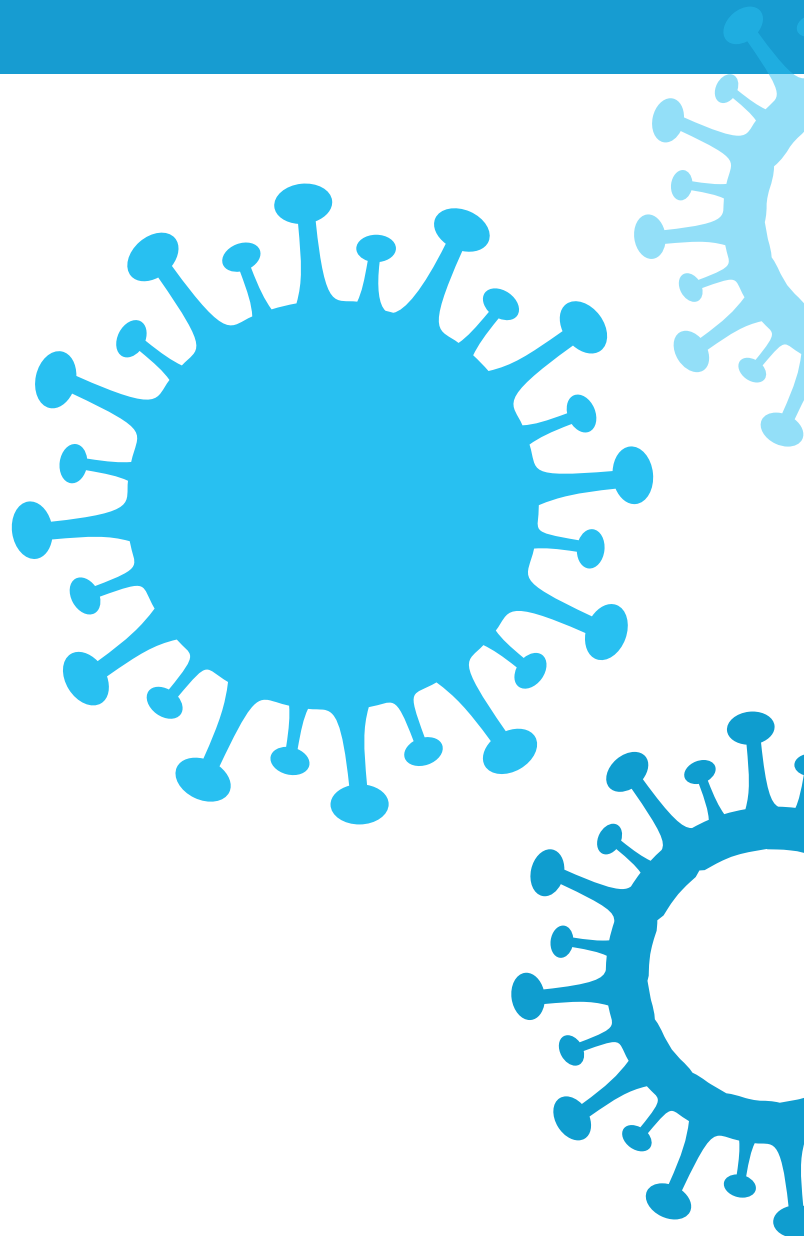
## Detect all SARS-CoV-2 variants of concern with Optimer<sup>®</sup>

Optimer binds to SARS-CoV-2 Spike protein detect all World Health Organisation designated variants of concern, including Omicron.

Variant	K <sub>d</sub> (nM)
WT	10.7 ± 0.07
Alpha (B.1.1.7)	7.16 ± 0.13
Beta (B.1.351)	5.24 ± 0.09
Gamma (P.1)	15.4 ± 0.14
Delta (1.617.2)	5.68 ± 0.04
Omicron (B.1.529)	10.85 ± 0.09

SARS-CoV-2 S1-specific Optimer binds all variants via in vitro assays.

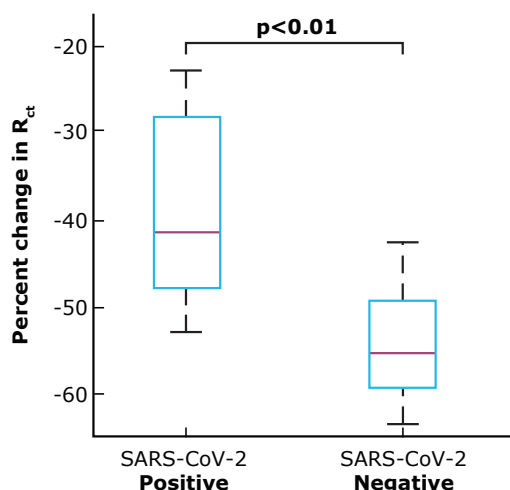
Comparable performance for all variants simplifies assay optimization and maximises the likelihood of ongoing detection of COVID-19 infections.



# Platform compatible for flexible diagnostic development

SARS-CoV-2 Optimer binders have proven performance in biosensor and lateral flow applications  
Compatible with nasal and saliva matrices.

## Specific and sensitive biosensor assays



SARS-CoV-2 Optimer-functionalised biosensor shows accurate and sensitive detection of the virus in clinical samples.

Reagent validated on multiple biosensor platforms – *biolayer interferometry, gold-electrochemical, redox-based, graphene-based and raman spectroscopy-based sensors.*

## Multiple configurations for flexible LFD assembly



Proof-of-concept Optimer SARS-CoV-2 LFD show detection of inactivated virus in mock nasal matrix.

Validated performance as hybrid Optimer-antibody or Optimer-Optimer matched pairs for convenient assay configuration.

## Available SARS-CoV-2 specific Optimer<sup>®</sup> reagents:

- ✓ Spike protein S1
- ✓ Spike protein S2
- ✓ Nucleocapsid

## Simple and secure supply with Optimer<sup>®</sup>

- Non-animal derived reagents for adherence to EU directive 2010/63/EU.
- Synthetic chemical reagents that are readily manufactured with the highest batch-to-batch consistency.
- Highly temperature stable, Optimer<sup>®</sup> reagents do not require cold chain logistics for low cost, convenient global shipping.