Government of Canada
MEMORANDUM

Gouvernement du Canada
NOTE DE SERVICE

TO
Rosslynn Miller-Lee
Executive Director,
Medical Device Evaluation Bureau
MDD

FROM
DE
Maria Carballo, Manager
IVD Device Evaluation Division
MDD

SUBJECT
OBJET
Recommendation for Authorization under Interim Order COVID-19

Manufacturer: DiaSorin Molecular LLC

Device: DiaSorin Molecular Simplexa ™ COVID-19 Direct Assay; **Application 313264**

Background

On April 1, 2020, Health Canada received an application submitted by DiaSorin Molecular LLC for authorization of their DiaSorin Molecular Simplexa ™ COVID-19 Direct Assay intended for the detection of SARS-CoV-2 nucleic acid in nasopharyngeal swabs specimens. Further information was received on April 9, 2020.

The system consists of the Simplexa COVID-19 Direct (Reaction Mix), the LIAISON MDX (with LIAISON MDX Studio Software version 1.1 or higher), the Direct Amplification Disc (DAD), and associated accessories. The LIAISON MDX with LIAISON MDX Studio Software version 1.1 or higher is licensed (Licence No. 99542).

The application was reviewed under the Interim Order 32 Respecting the Importation and Sale of Medical Devices for Use in Relation to COVID-19 pursuant to 33 subsection 30.1(1) of the Food and Drugs Act. This Interim Order will allow the Department to issue expedited authorization for sale or import of medical devices to deal with the current significant risk of COVID-19 to the health and safety of Canadians.

The information submitted was evaluated based on the Medical Devices Regulations and the "*Policy for Diagnostics Testing in Laboratories Certified to Perform High Complexity Testing under CLIA prior to Emergency Use Authorization for Coronavirus Disease-2019 during the Public Health Emergency"* Guidance issued by the US FDA on February 29, 2020.

Intended Use

The DiaSorin Molecular Simplexa™ COVID-19 Direct real-time RT-PCR assay is intended for use on the LIAISON® MDX instrument for the in vitro qualitative detection of nucleic acid from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in nasopharyngeal swabs (NPS) from individuals suspected of COVID-19 by their healthcare provider. The Simplexa™ COVID-19 Direct assay is an aid in the diagnosis of SARS-CoV-2 infection.

Testing is limited to laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, to perform high and moderate complexity tests.

Results are for the identification of SARS-CoV-2 RNA. The SARS-CoV-2 RNA is generally detectable in nasopharyngeal swabs (NPS) during the acute phase of infection. Positive results are indicative of the presence of SARS-CoV-2 RNA; clinical correlation with patient history and other diagnostic information is necessary to determine patient infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease. Laboratories within the United States and its territories are required to report all positive results to the appropriate public health authorities.

Negative results do not preclude SARS-CoV-2 infection and should not be used as the sole basis for patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.

The Simplexa™ COVID-19 Direct assay is intended for use by qualified and trained clinical laboratory personnel specifically instructed and trained in the techniques of real-time PCR and in vitro diagnostic procedures. Simplexa™ COVID-19 Direct is only for use under the Food and Drug Administration's Emergency Use Authorization.
[Package Insert_Rev.01]

Discussion: The information provided meets the minimum requirements for issue of Authorization under Interim Order 32.

Marketing history for the assay is limited as they have recently received FDA EUA on March 19, 2020 and CE mark on March 20, 2020.

Studies for Limit of Detection, Reactivity/Inclusivity, Cross-reactivity, and reagent stability, and Clinical evaluation using clinical samples from samples collected in Italy were provided and determined to be acceptable. Endogenous interference was not validated. However, this is not identified as a minimum requirement since PCR is a well-established PCR method thus evaluation of endogenous interference is not critical.

Labelling meets the minimum requirements of the Regulations with minor exemptions that will be addressed through the conditions imposed to the authorization. Included in the conditions is the request to complete the real time stability studies to support the shelf life claims for the device.

In the context of the COVID-19 pandemic, the preliminary validation studies provided by the manufacturer provide reasonable assurance that the DiaSorin Molecular Simplexa ™ COVID-19 Direct Assay will perform as claimed for its intended use under the current COVID-19 national health emergency.

RECOMMENDATION:

Authorization of the DiaSorin Molecular Simplexa ™ COVID-19 Direct Assay under Interim Order 32 with the following conditions:

1. Labelling:

a) Revise the intended use in the package inserts to exclude references to the FDA EUA and CLIA authorizations as follows:

The DiaSorin Molecular Simplexa™ COVID-19 Direct real-time RT-PCR assay is intended for use on the LIAISON® MDX instrument for the in vitro qualitative detection of nucleic acid from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in nasopharyngeal swabs (NPS) from individuals suspected of COVID-19 by their healthcare provider. The Simplexa™ COVID-19 Direct assay is an aid in the diagnosis of SARS-CoV-2 infection.

~~Testing is limited to laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, to perform high and moderate complexity tests.~~
Results are for the identification of SARS-CoV-2 RNA. The SARS-CoV-2 RNA is generally detectable in nasopharyngeal swabs (NPS) during the acute phase of infection. Positive results are indicative of the presence of SARS-CoV-2 RNA; clinical correlation with patient history and other diagnostic information is necessary to determine patient infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease. Laboratories ~~within the United States and its territories~~ are required to report all positive results to the appropriate public health authorities.

Negative results do not preclude SARS-CoV-2 infection and should not be used as the sole basis for patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.

The Simplexa™ COVID-19 Direct assay is intended for use by qualified and trained clinical laboratory personnel specifically instructed and trained in the techniques of real-time PCR and in vitro diagnostic procedures. ~~Simplexa™ COVID-19 Direct is only for use under the Food and Drug Administration's Emergency Use Authorization.~~

b) Include the storage condition of the samples in the Specimen Collection and Handling section of the IFU.

2. For the stability studies, provide the following:
   a) Include the comparison of the Ct values obtained with the testing time points and the reference (time zero) as part of the acceptance criteria in your protocol.

b) Indicate the planned dates to start and finish the study.
c) Provide the shelf-life stability study protocol for the Simplexa COVID-19 Positive Control Pack, indicating the planned start and end dates for the study.
d) When available, the results of the shelf-life stability studies.

I concur / Je suis d'accord

	2020-04-09		
Maria Carballo Manager, In Vitro Diagnostic Section / chef, Matériels diagnostiques in vitro Device Evaluation Division / Division de l'Évaluation des Matériels	Date	**Rosslyn Miller-Lee** Executive Director/ Directrice Executive Medical Devices Evaluation Bureau/ Bureau de l'évaluation des instruments médicaux	Date