ARROW DIAGNOSTICS
DIAGNOSTIC SOLUTIONS IN MOLECULAR BIOLOGY

ONCOLOGY
MICROBIOLOGY
GENETICS
RAPID TESTS

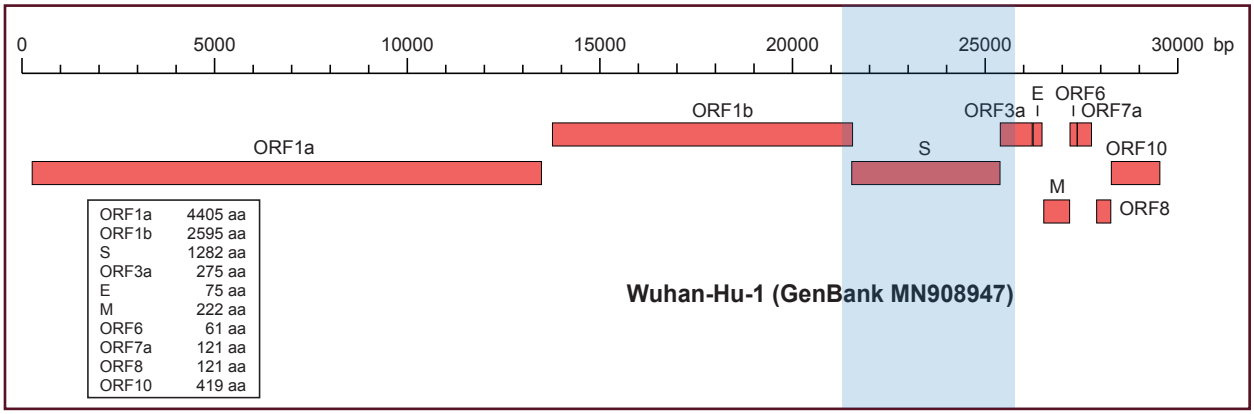
ADx SEQ

SARS-CoV-2 S gene

From the beginning of COVID-19 pandemic, "several SARS-CoV-2 variants of concern (VOC) have emerged in the past months and monitoring them in all countries is key. To be able to confirm infection with a specific variant, sequencing of the whole SARS-CoV-2 genome, or at least whole or partial S-gene for the current variants is required. The only way to identify and characterise new variants and unambiguously type existing variants is with genomics."

(Cit. from European Centre for Disease Prevention and Control, World Health Organization.Methods for the detection and identification of SARS-CoV-2 variants. 3 March 2021. ECDC: Stockholm; 2021)

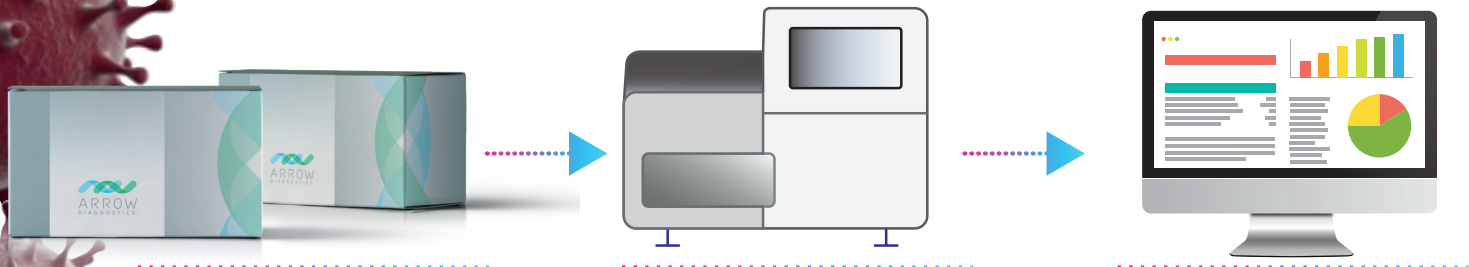
TARGET REGIONS



ORF1a	4405 aa
ORF1b	2595 aa
S	1282 aa
ORF3a	275 aa
E	75 aa
M	222 aa
ORF6	61 aa
ORF7a	121 aa
ORF8	121 aa
ORF10	419 aa

Image source: https://it.wikipedia.org/wiki/File:SARS-CoV-2_genome.svg

SARS-CoV-2 S gene solution kit is an *in vitro* method based on the amplification by RT-PCR of the viral RNA S gene considered having a key role in monitoring the several SARS-CoV-2 variants of concern (VOC), followed by NGS sequencing and automatic interpretation results.



LIBRARY PREP

NGS SEQUENCING

AUTOMATIC INTERPRETATION SOFTWARE

SmartSeq simply bioinformatics

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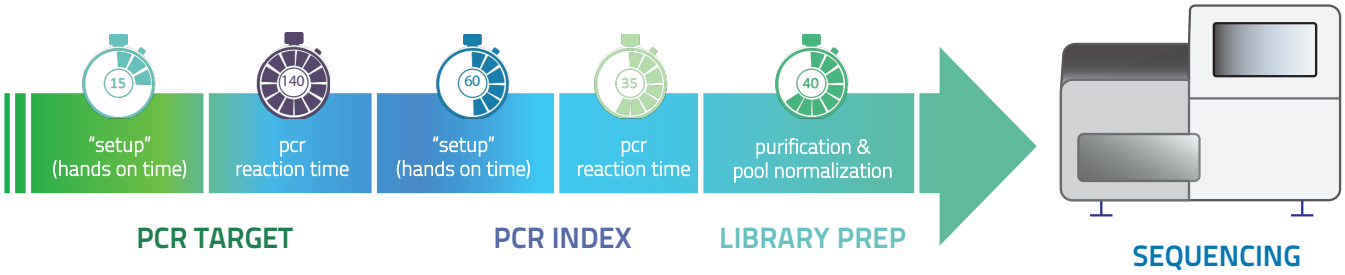
SARS-CoV-2 S gene WORKFLOW



SEQUENCING INFORMATION

Illumina® Instrument	Illumina® Kit	N. of Samples	Sequencing Time Illumina® official data
MiSeq™	Reagent Nano Kit v2 (300-cycles) cod: MS-103-1001	10-15	~ 28 h
MiSeq™	Reagent Micro Kit v2 (300-cycles) cod: MS-103-1002	40-60	~ 19 h
MiSeq™	Reagent Kit v2 (300-cycles) cod: MS-102-2002	Up to 200	~ 17 h
ISeq™ 100	i1 Reagent v2 (300-cycles) cod: 20031371	40-60	~ 19 h
MiniSeq™	Mid Output Kit (300-cycles) cod: FC-420-1004	80-100	~ 17 h

ORDERING INFORMATION

Cat. Number	Product	Package volume
AD-007.080	SARS-CoV-2 S gene	80 rxns