Genetic diversity of the novel coronavirus SARS-CoV-2 (COVID-19) in Portugal

More information at https://insaflu.insa.pt/covid19



Situation Report May 7th, 2025

The National Institute of Health Doutor Ricardo Jorge, I.P. (INSA) has analysed 50657 SARS-CoV-2 genome sequences so far.

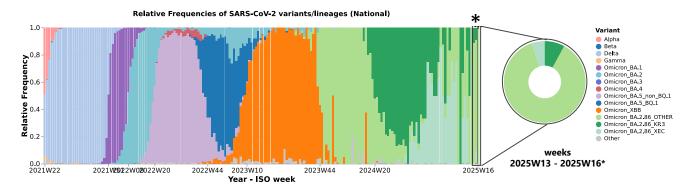
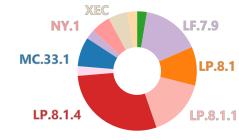


Figure 1: Evolution of the weekly relative frequency of the SARS-CoV-2 variants circulating in Portugal between ISO weeks 22/2021 (31/05/21 - 06/06/21) and 16/2025 (14/04/25 - 20/04/25), with emphasis on the latest weeks. *The presented relative frequencies refer to the period of ISO weeks 13/2025 to 16/2025. This and other graphs can be explored interactively on the website.

Main highlights

The **lineage BA.2.86** of the *Omicron* variant has been **dominant in Portugal since week 44 of 2023**, following its first detection in week 33/2023. Among its lineages, we highlight:

- Lineage KP.3, which is included in the list of variants of interest by the ECDC (https://www.ecdc.europa.eu/en/covid-19/variants-concern), has shown a declining trend in Portugal (Figure 1).
- Recombinant XEC lineage of the Omicron variant, which resulted from the recombination between two BA.2.86 sublineages (KS.1.1 and KP.3.3), is included in the ECDC's variants under monitoring (VUM) list and, therefore, it is presented here independently from its ancestral lineage for better monitoring and interpretation of this report. XEC was dominant in Portugal between weeks 44/2024 and 04/2025 (Figure 2), and has since then been showing a declining trend.
- Lineage KP.1 has been showing an increasing trend in relative frequency in Portugal since week 02/2025. In the last sampling (weeks 13/2025 16/2025), it represented 78% of the analyzed sequences. We highlight its sublineage LP.8.1, also recently classified as VUM by ECDC, with a relative frequency of 58% in the last sampling.



weeks 2025W13 - 2025W16*

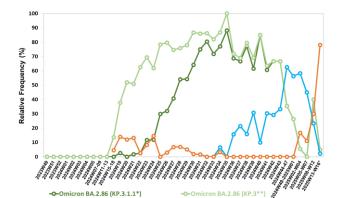


Figure 2: Evolution of the relative frequency of some sub-lineages of interest circulating in Portugal. The circular graph shows the distribution of the relative frequencies of SARS-CoV-2 sub-lineages in the period of ISO weeks 13/2025 and 16/2025 (24/03/25 – 20/04/25) highlighting the most frequent sub-lineages in this period. The evolution of relative frequencies of KP.1, KP.3 and KP.3.1.1 lineages and the recombinant lineage XEC during the last weeks is shown in the line plot. *The presented relative frequencies correspond to the sub-lineages and their descendants. Other graphs can be explored interactively on the website.

Autorship

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Recommended citation

National Institute of Health (INSA) Doutor Ricardo Jorge. Genetic diversity of the novel coronavirus SARS-CoV-2 (COVID-19) in Portugal. Lisbon, Portugal INSA; 2022. Available at: https://insaflu.insa.pt/covid19

Useful links

-O-Omicron BA.2.86 (XEC recombinant**)

https://www.ecdc.europa.eu/en/covid-19/situation-updates/variants-dashboar https://www.who.int/activities/tracking-SARS-COV-2-variants https://cov-lineages.org/lineage_list.html https://cottreak.info/

-O-Omicron BA.2.86 (KP.1*)





