

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

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



Situation Report

March 5th, 2025

The National Institute of Health Doutor Ricardo Jorge, I.P. (INSA) has analysed **50603** SARS-CoV-2 genome sequences so far.

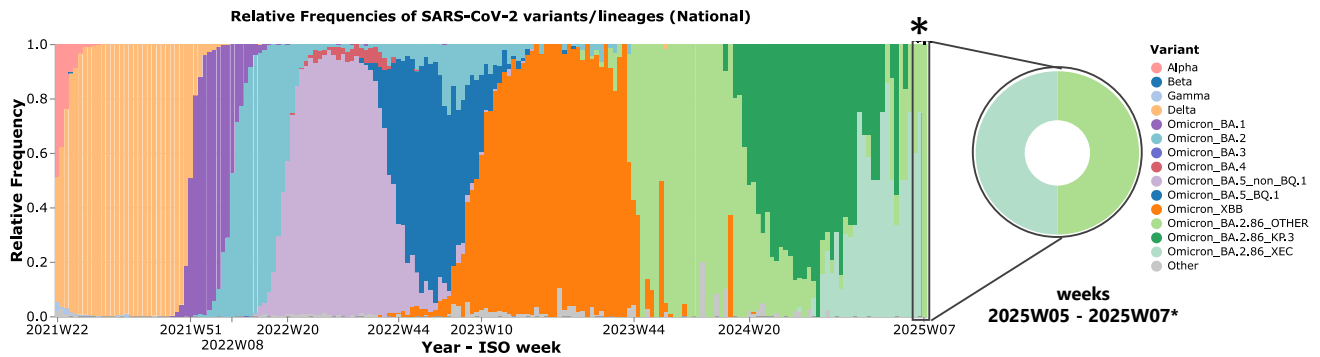


Figure 1: Evolution of the weekly relative frequency of the SARS-CoV-2 variants circulating in Portugal between ISO weeks 22/2021 (31/05/21 - 06/06/21) and 07/2025 (10/02/25 - 16/02/25), with emphasis on the latest weeks. *The presented relative frequencies refer to the period of ISO weeks 05/2025 to 07/2025. **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, **KP.3** stands out, as it included in the list of variants of interest by the ECDC (<https://www.ecdc.europa.eu/en/covid-19/variants-concern>). The **relative frequency of KP.3 (and its sub-lineages)** has been showing a **declining trend** in Portugal, with **no sequences** being found between weeks **05/2025** and **07/2025** (**Figure 1**).
- The **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), added to the **ECDC's variants under monitoring** list. Therefore, it is presented here independently from its ancestral lineage for better monitoring and interpretation of this report. **XEC** was first detected in Portugal in week 31/2024 (**Figure 2**), and in the latest sampling (weeks **05/2025** to **07/2025**), it accounted for **50%** of the sequences analyzed, remaining **the dominant lineage in Portugal**, as well as in several countries.

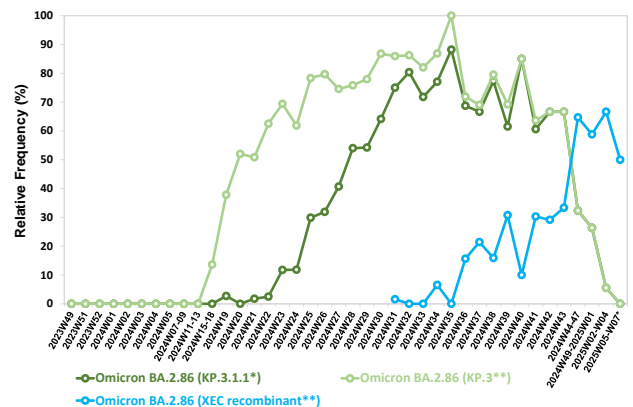
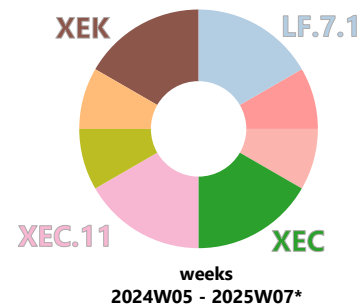


Figure 2: Evolution of the relative frequency of some sub-lineages of interest circulating in Portugal. The circular graph shows the distribution of the relative frequencies of SARS-CoV-2 sub-lineages in the period of ISO weeks 05/2025 and 07/2025 (27/01/24 - 16/02/25) **highlighting the most frequent sub-lineages in this period.** The evolution of relative frequencies of 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.**

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Useful links

<https://www.ecdc.europa.eu/en/covid-19/situation-updates/variants-dashboard>
<https://www.who.int/activities/tracking-SARS-CoV-2-variants>
https://cov-lineages.org/lineage_list.html
<https://outbreak.info/>
<https://www.gisaid.org/>