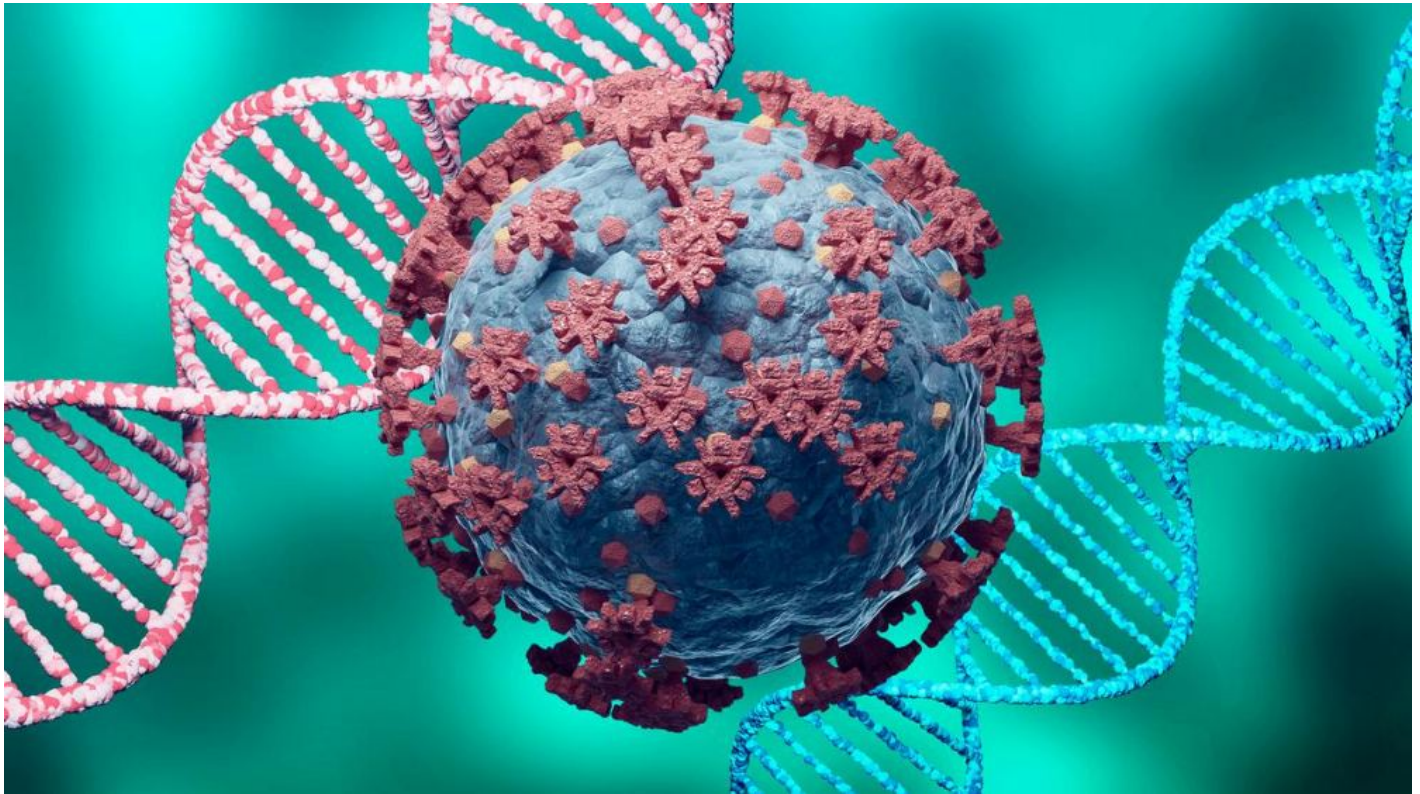


Picolinic Acid

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About Picolinic acid:

- **What it is?** It is a pyridinemonocarboxylic acid in which the carboxy group is located at position 2.
- It is an intermediate in the **metabolism of tryptophan**.
- It has a role as a MALDI matrix material and a human metabolite.
- It is a **conjugate acid of a picolinate**.

Key findings:

- The study describes the compound's remarkable ability to disrupt the entry of **enveloped viruses into the host's cell and prevent infection**.
- It is known to help in **the absorption of zinc and other trace elements** from our gut, but, in its natural form, it stays inside the body only for a short duration, and is usually excreted out quickly.

- It is effective against a variety of enveloped viruses, including flaviviruses like the Zika virus and the Japanese encephalitis virus.
 - When the compound was tested in SARS-CoV-2 and influenza animal models, it was found to **protect the animals from infection**.
 - It was also **found to reduce viral load** in the lungs when given to infected animals.
 - In addition, the researchers found that picolinic acid led to an **increase in the number of immune cells in the animals**.
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Q) What are Enveloped viruses?

Enveloped viruses are a type of virus that possess an outer envelope made up of a lipid (fatty) bilayer. This envelope surrounds the virus's genetic material, which can be either DNA or RNA, and may contain various viral proteins. The envelope is obtained from the host cell membrane during the viral replication process, as the virus exits the host cell.

Source: [IISc study reveals that picolinic acid can block viruses causing SARS-CoV-2 and influenza A](#)

Source: <https://vajiramandravi.com/current-affairs/picolinic-acid/>

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