

- Desferal is a siderophore-based drug that is used in humans to treat iron-overload. One molecule of Desferal (molecular formula: $C_{25}H_{48}O_8N_6$) can bind one Fe^{3+} ion. A patient with an iron-overload disease had an excess of $5.34 \times 10^{-4} M Fe^{3+}$ in her bloodstream. Assuming the patient had a total blood volume of 4.84 L, what mass of Desferal would be required to complex all of the excess Fe^{3+} ?

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Answer: