

# C1 ESTERASE INHIBITOR

BRAND NAME	BERINERT IV, BERINERT SC, CINRYZE
DRUG CLASS	Immunomodulator for angioedema
AVAILABILITY	<p><b>Beriner SC</b> vial contains 2000 or 3000 international units of C1 esterase inhibitor. Also contains glycine, sodium citrate and sodium chloride. Diluent vial contains 4 mL (2000 I.U) or 6 mL(3000 I.U) of water for injections.</p> <p><b>Beriner IV</b> vial contains 500 or 1500 international units of C1 esterase inhibitor. Also contains glycine, sodium citrate and sodium chloride. Contains up to 486 mg/100 mL of sodium. Diluent vial contains 10 mL of water for injections.<sup>1</sup></p> <p><b>Cinryze</b> vial contains 500 international units of C1 esterase inhibitor. Also contains sodium chloride, sucrose, sodium citrate dihydrate, valine, alanine and threonine. Contains 0.5 mmol of sodium. Diluent vial contains 5 mL of water for injections.<sup>1</sup></p>
WARNING	<p>This is a blood product. Check your local guidelines for handling, storage and batch recording requirements.</p> <p>Severe hypersensitivity and anaphylactic reactions may occur.<sup>1</sup></p>
pH	Cinryze: 6.6–7.4 <sup>2</sup>
PREPARATION	<p><b>Beriner SC:</b> reconstitute the 2000 IU vial with 4 mL or the 3000 IU vial with 6 mL of water for injections. Use the Mix2Vial adaptor provided to reconstitute the vial and to filter solution. Gently swirl the vial until dissolved, it may take up to 10 minutes. <b>Do not shake.</b> The concentration is 500 international units/mL. The solution is clear and colourless to slightly opalescent.<sup>1</sup></p> <p><b>Beriner IV:</b> reconstitute the 500 IU vial with 10 mL or the 1500 IU vial with 3 mL of water for injections. The concentration is 50 or 500 international units/mL.<sup>1</sup> Use the Mix2Vial adaptor provided to reconstitute the vial and to filter solution. <b>Do not shake.</b> The solution is clear and colourless, the 1500 IU solution may be slightly opalescent.<sup>1</sup></p> <p><b>Cinryze:</b> reconstitute the vial with 5 mL of water for injections to make a concentration of 100 international units/mL.<sup>1</sup> Use the silicone-free syringe and transfer device provided to reconstitute the vials and filter the solution. <b>Do not shake.</b> Follow directions on the package insert. Two vials are combined to make a dose of 1000 international units. The solution is clear and colourless to slightly blue.<sup>1</sup></p>
STABILITY	<p><b>Beriner SC</b> vial: store below 30 °C. Do not freeze. Protect from light.<sup>1</sup></p> <p><b>Beriner IV</b> and <b>Cinryze</b> vial: store below 25 °C. Do not freeze. Protect from light.<sup>1</sup></p> <p><b>Beriner SC</b> reconstituted solution is stable for 6 hours below 30 °C.<sup>1</sup></p> <p><b>Beriner IV 500 IU</b> reconstituted solution is stable for 24 hours at 2 to 8 °C.<sup>1</sup></p> <p><b>Beriner IV 1500 IU</b> reconstituted solution is stable for 8 hours at 2 to 8 °C.<sup>1</sup></p> <p><b>Cinryze</b> reconstituted solution is stable for 3 hours at 15 to 25 °C.<sup>1</sup></p>
ADMINISTRATION	
<b>IM injection</b>	Not recommended
<b>SUBCUT injection</b>	<p>Beriner SC: inject into the abdomen.<sup>1</sup></p> <p>Suitable for self-administration after appropriate patient education.<sup>1</sup></p>
<b>IV injection</b>	<p><b>Beriner IV:</b> inject at a rate of 4 mL/minute.<sup>1</sup> <b>Cinryze:</b> inject at a rate of 1 mL/minute.<sup>1</sup></p> <p>Suitable for self-administration after appropriate patient education.<sup>1</sup></p>
<b>IV infusion</b>	Not recommended
<b>IV use for infants and children</b>	<p><b>Beriner IV:</b> inject undiluted at a rate of 4 mL/minute (200 international units/minute).<sup>1</sup></p> <p><b>Cinryze:</b> inject undiluted at a rate of 1 mL/minute (100 international units/minute).<sup>1</sup> May also be given as an infusion.<sup>3</sup></p>
COMPATIBILITY	No information
INCOMPATIBILITY	No information

**SPECIAL NOTES** Monitor for signs of hypersensitivity including hives, urticaria, tightness of chest, wheezing, hypotension and anaphylaxis. Stop the infusion and treat accordingly.<sup>1</sup>

#### REFERENCES

1. Product information Available from [www.tga.gov.au](http://www.tga.gov.au). Accessed 02/02/2021.
2. Cinryze. US prescribing information. Exton, PA; ViroPharma Biologics. Approved 2008. Updated 07/2018. Available from [www.dailymed.nlm.nih.gov](http://www.dailymed.nlm.nih.gov). Accessed 02/10/2019.
3. Paediatric Formulary Committee. BNF for children. Basingstoke, UK: Pharmaceutical Press; 2018-2019.