# **PRODUCT** INFORMATION



## **Ciraparantag (trifluoroacetate salt)**

Item No. 36809

Formal Name:	(2S,2'S)-N,N'-(1,4-piperazinediyldi- 3,1-propanediyl) <i>bis</i> [2-amino- 5-[(aminoiminomethyl)amino]- pentanamide, trifluoroacetate salt	
Synonym:	PER977	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
MF:	C <sub>22</sub> H <sub>48</sub> N <sub>12</sub> O <sub>2</sub> • XCF <sub>3</sub> COOH	
FW:	512.7	NH Ö
Purity:	≥95%	
Supplied as:	A solid	• XCF <sub>3</sub> COOH
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### Laboratory Procedures

Ciraparantag (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the ciraparantag (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. It is also soluble in water. The solubility of ciraparantag (trifluoroacetate salt) in methanol and water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

Ciraparantag is an anticoagulant reversal agent.<sup>1,2</sup> It selectively binds to unfractionated heparin, enoxaparin, and Factor IXa (K<sub>d</sub>s = 28, 17, and 35 µM, respectively) over edoxaban (Item No. 24030), rivaroxaban (Item No. 16043), Factor Xa, Factor IX, thrombin (Item No. 13188), antithrombin, and fibrinogen, and only weakly binds to an enoxaparin-antithrombin complex and fondaparinux (Item No. 24033;  $K_{s}$  = 690 and 9,600  $\mu$ M, respectively), in cell-free assays.<sup>1</sup> Ciraparantag (200  $\mu$ g/ml) prevents decreases in fibrin diameter induced by the Factor Xa inhibitor edoxaban in isolated human whole blood. It reduces edoxaban-, dabigatran-, apixaban-, rivaroxaban-, unfractionated heparin-, or enoxaparin-stimulated increases in tail transection-induced blood loss in rats.<sup>2</sup>

#### References

- 1. Kalathottukaren, M.T., Creagh, A.L., Abbina, S., et al. Comparison of reversal activity and mechanism of action of UHRA, and exanet, and PER977 on heparin and oral FXa inhibitors. Blood Adv. 2(16), 2104-2114 (2018).
- 2. Ansell, J., Laulicht, B.E., Bakhru, S.H., et al. Ciraparantag, an anticoagulant reversal drug: Mechanism of action, pharmacokinetics, and reversal of anticoagulants. Blood 137(1), 115-125 (2021).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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