# Kliniderm® Superabsorbent

## confirmed as

# protease modulator

**The Kliniderm Superabsorbent is a top runner in the Klinion wound care assortment. The dressing has shown excellent absorbing ability and performance, even under compression[1]. The newest test results reveal that the dressing also effectively reduces MMP-2 and MMP-9 levels in vitro.**
**With its excellent absorption capacity and retaining the MMPs in the dressing core, the Superabsorbent is serving patients and healthcare professionals to their full needs.**

## What are MMPs and why are they important?

**Matrix metalloproteinases (MMPs) are involved in the removal of damaged extracellular matrix during normal wound healing. As well as being secreted by cells involved in wound healing, proteases can be produced by immune cells stimulated by an inflammatory process or infection. Evidence suggests that the wounds that fail to heal contain high MMP levels which can lead to a highly destructive wound environment. Reducing excess protease activity within a non-healing wound may improve the wound healing process. Consequently, advanced wound dressings have been developed to remove the harmful MMPs and proteases from the chronic wounds.**

## 100% MMP-2 reduction after 1 day use of Kliniderm® Superabsorbent

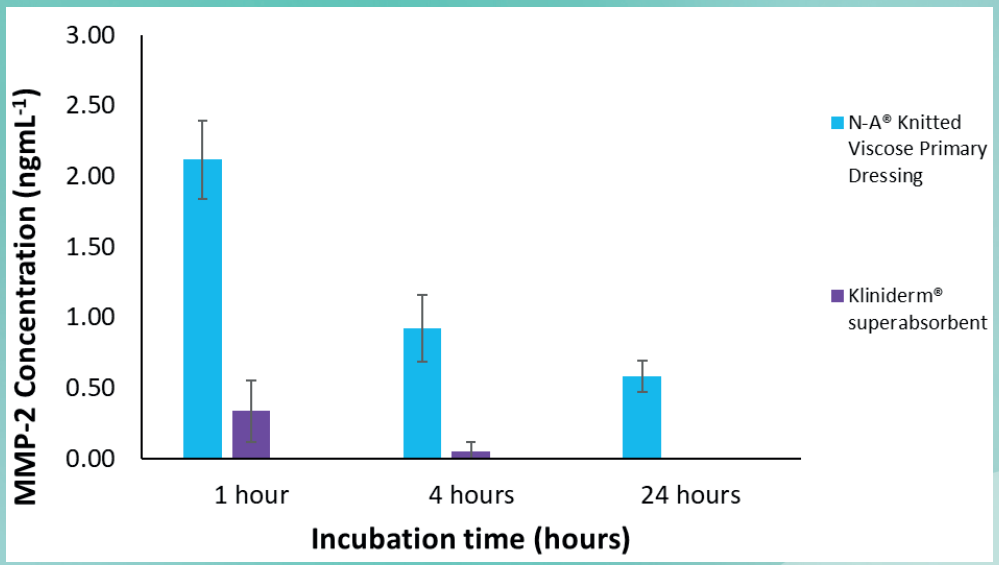


*Figure 1. Concentration of MMP-2 remaining in supernatant following 1, 4 and 24 hours incubation with Kliniderm® Superabsorbent (purple) and negative control dressing (blue)*

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## Significant MMP-9 reduction after 1 day use of Kliniderm® Superabsorbent

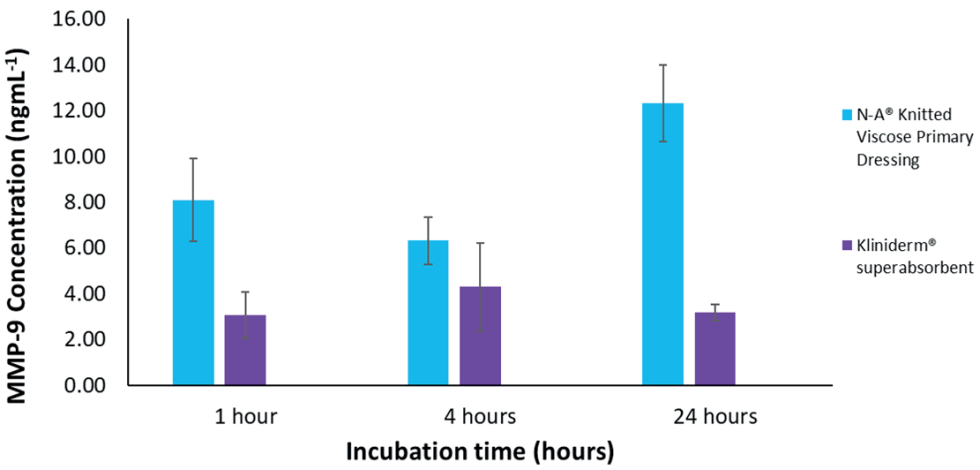


*Figure 2. Concentration of MMP-9 is reduced by 74% after 24 hours by Kliniderm® Superabsorbent (purple) compared to negative control dressing (blue)*

## Why is Kliniderm® Superabsorbent a good solution for your non-healing, high exuding wound?

**This in vitro study demonstrated that Kliniderm® Superabsorbent completely removed MMP-2 within 24 hours and reduced the concentration of MMP-9 by 74% in comparison to negative controls. The presence of elevated levels of MMPs in the wound is known to cause the delays in wound healing and wound closure.**
**This data suggests that the application of Klinderm® Superabsorbent may promote successful wound healing, by reducing elevated protease levels within the wound.**

[1]An in vitro assessment of the fluid absorption and bacterial sequestration properties of an SAP wound dressing. Westgate, S. J. and Thomas, H. *Perfectus Biomed Ltd.*

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