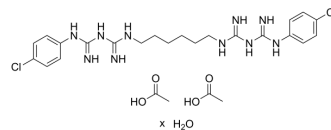




Chlorhexidine acetate hydrate

Cat. No.:	HY-B1248A
CAS No.:	206986-79-0
Molecular Formula:	$C_{22}H_{30}Cl_2N_{10} \cdot 2C_2H_4O_2 \cdot xH_2O$
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Chlorhexidine acetate hydrate is an antibacterial used as an antiseptic and for other applications. Chlorhexidine acetate hydrate is used to clean the skin after an injury, before surgery, or before an injection. Chlorhexidine acetate hydrate is also used to clean the hands before a procedure ^[1] .								
In Vivo	<p>Chlorhexidine acetate hydrate  Chlorhexidine acetate hydrate </p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>One hundred and eighty male Imprinting Control Region (ICR) mice at 6 to 8-wk-old (body weight, 25 ± 3 g) were randomized to six groups^[1].</td> </tr> <tr> <td>Dosage:</td> <td>Chlorhexidine gluconate 0.05%, and Chlorhexidine gluconate 0.025%.</td> </tr> <tr> <td>Administration:</td> <td>One-time intraperitoneal injection.</td> </tr> <tr> <td>Result:</td> <td>A total of 48 mice (26.7%) developed postoperative intra-abdominal abscesses. Mice that had Chlorhexidine gluconate 0.05% lavage had significantly lower incidence of postoperative intra-abdominal abscesses compared with that of group D mice that had saline lavage only (P = 0.0113). Microscopic peritoneal fibrosis occurred significantly more among group E mice that had Chlorhexidine gluconate 0.05% lavage compared with group D mice that had saline lavage only (P = < 0.005).</td> </tr> </table>	Animal Model:	One hundred and eighty male Imprinting Control Region (ICR) mice at 6 to 8-wk-old (body weight, 25 ± 3 g) were randomized to six groups ^[1] .	Dosage:	Chlorhexidine gluconate 0.05%, and Chlorhexidine gluconate 0.025%.	Administration:	One-time intraperitoneal injection.	Result:	A total of 48 mice (26.7%) developed postoperative intra-abdominal abscesses. Mice that had Chlorhexidine gluconate 0.05% lavage had significantly lower incidence of postoperative intra-abdominal abscesses compared with that of group D mice that had saline lavage only (P = 0.0113). Microscopic peritoneal fibrosis occurred significantly more among group E mice that had Chlorhexidine gluconate 0.05% lavage compared with group D mice that had saline lavage only (P = < 0.005).
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CUSTOMER VALIDATION

- Nat Commun. 2021 Mar 29;12(1):1940.
- Cell Death Dis. 2022 Apr 22;13(4):396.
- Mol Oncol. 2020 Feb;14(2):373-386.
- Front Cell Dev Biol. 30 March 2021.
- Cell Signal. 2021 Apr 3;110002.

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REFERENCES

[1]. Wael E Shams, et al. Peritoneal Lavage Using Chlorhexidine Gluconate at the End of Colon Surgery Reduces Postoperative Intra-Abdominal Infection in Mice. J Surg Res. 2015 May 1;195(1):121-7.

Caution: Product has not been fully validated for medical applications. For research use only.

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