

Abstract:

The transport of Na ion across the omasum epithelium is generally mediated via two parallel working mechanisms: the electrogenic transport, which is probably represented by the short circuit current (Iso), and the electroneutral one, which is believed to be mediated via Na + m + exchange (NHE) (1, 2).

However, addition of 1 mmol l⁻¹ amiloride to the luminal side does not completely abolish the electroneutral transport of Na (2). This observation could indicate that a) the concentration of amiloride was not sufficient to abolish completely NHE, that b) an amiloride-resistant NHE or that c) a further mechanism of electroneutral Na transport exist. It was therefore the aim of this study to reinvestigate the electroneutral transport of Na ion across the omasal epithelium and to characterise it in more detail.