

## Possible role of sulphatide in the K<sup>+</sup>-activated phosphatase activity

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A microsomal fraction rich in (Na<sup>+</sup> + K<sup>+</sup>)-ATPase has been isolated from the outer medulla of pig kidney. (Mg<sup>2+</sup> + K<sup>+</sup>)-activated ouabain-sensitive phosphatase activity was studied in this preparation treated with arylsulphatase, an enzyme that specifically hydrolyzes ceramide galactose-3-sulphate. The activity of phosphatase was inactivated in proportion to the amount of sulphatide hydrolyzed. A maximum inactivation of ouabain-sensitive activity was obtained with 60% of the sulphatide content hydrolyzed. The inactivation caused by arylsulphatase was partially reversed by the sole addition of sulphatide. The evidence offered in this paper about sulphatide function in the sodium pump mechanism supports the idea that sulphatides are involved in the K<sup>+</sup>-activated phosphatase, a partial reaction of the (Na<sup>+</sup> + K<sup>+</sup>)-ATPase. © 1983.