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ProductInformation

Anti-Na^+/K^+ ATPase (β2-subunit)
Developed in Rabbit, Whole Antiserum

Product Number **A 3979**

Product Description

Anti-Na^+/K^+ ATPase (β2-subunit) was developed in rabbit using rat β2-subunit fusion protein containing residues 63-285, as deduced from cDNA, as immunogen. The β2-subunit exhibits virtual identity with the glial cell adhesion molecule AMOG.

Anti-Na^+/K^+ ATPase (β2-subunit) specifically recognizes the β2-subunit in a rat brain microsomal preparation by immunoblotting.

The Na^+/K^+ ATPase is an integral membrane enzyme found in all cells of higher organisms and is responsible for ATP-dependent transport of Na^+ and K^+ across cell membranes. This membrane-bound enzyme is related to a number of other ATPases including the SERCA and PMCA. The Na^+/K^+ ATPase consists of a large, multipass, transmembrane catalytic subunit, termed the α subunit, and an associated smaller glycoprotein, termed the β subunit. Studies indicate that there are three isoforms of the α subunit (α1, α2, α3) and two isoforms of the β subunit (β1 and β2) encoded by two multigene families.[1,2]

Different isoforms of the Na^+/K^+ ATPase exhibit tissue specific and developmental patterns of expression. The α1 and β mRNAs are present in all cell types examined, whereas the α2 and α3 mRNAs exhibit a more restricted pattern of cell-specific expression.[1-3]

Reagent

The antibody is supplied as 200 µL of whole antiserum.

Storage/Stability

Store at –20 °C. For extended storage, freeze in working aliquots. Avoid repeated freezing and thawing. Storage in "frost-free" freezers is not recommended. Centrifuge before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilution is 1:1000 for immunoblotting and 1:200 for immunohistochemistry.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Sun, Y. et al., Determination of Na^+/K^+ ATPase α- and β-isoforms and kinetic properties in mammalian liver., Am. J. Physiol,. **262**, C1491-C1499 (1992).
2. Mobasheri, A. et al., Characterization of the Na^+/K^+ ATPase in isolated bovine articular chondrocytes; molecular evidence for multiple α- and β-isoforms., Cell Biol. Int., **21**, 201-212 (1997).
3. Marxer, A., et al., Na^+/K^+ ATPase and plasma membrane polarity of intestinal epithelial cells: presence of a brush border antigen in the distal large intestine that is immunologically related to β subunit., J. Cell Biol., **109**, 1057-1069 (1989).

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