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ProductInformation

MONOCLONAL ANTI-H^+/K^+ ATPASE (b SUBUNIT) ANTIBODY,
CLONE 2G11
Mouse Ascites Fluid

Product Number **A-274**

Product Description

Monoclonal Anti-H^+/K^+-ATPase (β subunit) antibody (mouse IgG1 isotype) is produced by immunizing mice with the 34 kDa core peptide of the H^+/K^+-ATPase β subunit purified from deglycosylated hog gastric microsomes as the immunogen.

This antibody can be used for the localization and detection of H^+/K^+-ATPase β subunit in cow, dog, pig, rabbit, mouse, ferret and rat tissues. By immunoblotting, the antibody detects various forms of the β subunit, including a 60-80-kDa glycosylated protein, a 52 kDa β subunit precursor and the 34 kDa core peptide.

The H^+/K^+-ATPase, or gastric proton pump, belongs to a family of P-type cation-transporting adenosine 5'-triphosphatases (ATPases). This family of ATPases shares a number of functional and structural similarities including the common feature of consisting of an a and b subunit. Like the ubiquitous Na^+/K^+-ATPase, the H^+/K^+-ATPase consists of a large transmembrane catalytic subunit, termed the α subunit which contains sites for ATP binding and phosphorylation, and an associated smaller glycoprotein, termed the β subunit, which may play a role in maintaining the structural and functional integrity of the complex.

Reagents

Monoclonal Anti- H^+/K^+-ATPase (β subunit) antibody is supplied as ascites fluid, diluted in phosphate buffered saline (PBS) containing 0.05% sodium azide as a preservative.

Storage/Stability

For continuous use, store at 2-8°C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Recommended starting dilution is 1:4,000 for immunoblotting and 1:2,000 for immunohistochemistry. However, optimal working concentration should be determined by serial dilutions.

References

1. Chow, D.C. et al., Characterization of the β-subunit of the H(+)-K(+)-ATPase using an inhibitory monoclonal antibody. Am. J. Physiol., **265**,
2. C1562-C1570 (1993).
3. Shin, J.M. et al., Dimerization of the gastric
4. H^+/K^+-ATPase. J. Biol. Chem., **271**, 1904-1908 (1996).
5. Bayle, D. et al., Immunopurification of gastric parietal cell tubulovesicles. Comp. Biochem. Physiol. [B], **101**, 519-525 (1992).

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