

Monoclonal Antibody to ATP1B1 - Ascites

Alternate names:	Sodium Pump ATPase subunit beta-1, Sodium/potassium-dependent ATPase subunit beta-1, Sodium/potassium-transporting ATPase subunit beta-1
Catalog No.:	SM5123
Quantity:	0.2 ml
Background:	<p>The antigen is purified lamb kidney sodium/potassium ATPase beta. The sodium/potassium ATPase is an integral membrane enzyme found in all cells of higher organisms and is responsible for the ATP-dependent transport of sodium and potassium across the cell membrane. This membrane-bound enzyme is related to a number of other ATPases including sarcoplasmic and endoplasmic reticulum calcium ATPase (SERCA) and plasma membrane calcium ATPase (PMCA). The sodium/potassium ATPase consists of a large, multipass, transmembrane catalytic subunit, termed the alpha subunit, and an associated smaller glycoprotein, termed the beta subunit. Studies indicate that there are three isoforms of the alpha subunit (alpha 1, alpha 2, alpha 3) and two isoforms of the beta subunit (beta 1 and beta 2) encoded by two multigene families. The different isoforms of the sodium/potassium ATPase exhibit a tissue-specific and developmental pattern of expression. The alpha 1 and beta mRNAs are present in all cell types examined whereas the alpha 2 and alpha 3 mRNAs exhibit a more restricted pattern of cell-specific expression.</p>
Uniprot ID:	P05026
NCBI:	NP_001668.1
GeneID:	481
Host / Isotype:	Mouse / IgG2a
Clone:	M17-P5-F11
Immunogen:	Purified lamb kidney beta sodium/potassium ATPase.
Format:	State: Liquid Ascites containing 0.05% sodium azide
Applications:	<p>Western Blot: 1:250; an ~42 kDa protein in liver samples and ~55 kDa in kidney samples representing beta sodium/potassium ATPase in sheep liver extract. Immunoprecipitation. Immunohistochemistry: 1:100. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
Specificity:	<p>This antibody detects sodium/potassium ATPase beta 1. This antibody recognizes and epitope between amino acid residues 195-199 of sheep sodium/potassium ATPase beta 1. Species: Human, Sheep, Canine, Porcine. Other species not tested.</p>

Storage:

Store the antibody at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. J. Biol. Chem., Vol 278: 34794 - 34803, Sept 2003
2. Gut Vol 52, 1607-1615, Nov 2003
3. PNAS 99(22):14572-14577, 2002.
4. J. Biol. Chem., Dec 2006; 281: 39573 - 39587.
5. J. Biol. Chem., Feb 2001; 276: 4304 - 4314.
6. J Physiol 556.2, 507-519, Apr 2004
7. American Journal of Physiology, 262: C1491-C1499, 1992.