ATP7B, ATPase alpha polypeptide Cu++ transporting polyclonal antibody

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Box 1 | Basic Info

Cat. No.	ABP-PAB-11613
Animal ID	RB1091/RB1092
Host	Rabbit
Reactivity	Human
Format	Purified
Accession number	NM_000053
Amount	100µg

Alternative Name(s): ATPase, Cu++ transporting, beta polypeptide, Wilson disease protein, WND

A major obstacle in the treatment of human solid carcinomas is the intrinsic/acquired resistance to cisplatin-based chemotherapy. Copper-transporting P-type adenosine triphosphatase (ATP7B) has been reported to be associated with cisplatin resistance in vitro. ATP7B is overexpressed in human solid carcinomas such as breast, gastric and oral squamous cell carcinomas. ATP7B expression has an influential effect on some subsets of patients with cisplatin-treated carcinomas. ATP7B mutation is well-known as a cause of Wilson's disease. In addition, the six copper-binding domain and ATP-binding domain of ATP7B are important for the transportation of metals.

Buffers

Purified rabbit polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column and eluted out with both high and low pH buffers and neutralized immediately after elution then followed by dialysis against PBS.

Immunogen

KLH conjugated synthetic peptide comprised of amino acids 471 - 483 [APDILAKSPQSTR] of the human ATPase alpha polypeptide Cu++ transporting (ATP7B) protein.

Application

Tested by peptide-specific ELISA (1:1,000).

Storage

Maintain refrigerated at 2-8ºC for up to 6 months. For long term storage store at -20ºC. Avoid repeated freeze-thaw cycles.

References:

1. Kanzaki A, Nakayama K, Miyashita H, Shirata S, Nitta Y, Oubu M, Higashimoto M, Mutoh M, Mori S, Konno S, Ogawa K, Toi M, Takebayashi Y: Mutation analysis of copper-transporting P-type adenosine triphosphatase (ATP7B) in human solid carcinomas.Anticancer Res. 23(2C): 1913-1915 (2003).
2. Lutsenko S, Tsivkovskii R, Walker JM: Functional properties of the human copper-transporting ATPase ATP7B (the Wilson's disease protein) and regulation by metallochaperone Atox1. Ann. N Y Acad. Sci. 986: 204-211 (2003).
3. Higashimoto M, Kanzaki A, Shimakawa T, Konno S, Naritaka Y, Nitta Y, Mori S, Shirata S, Yoshida A, Terada K, Sugiyama T, Ogawa K, Takebayashi Y: Expression of copper-transporting P-type adenosine triphosphatase in human esophageal carcinoma. Int. J. Mol. Med. 11(3): 337-341 (2003).
4. Harada M, Kumemura H, Sakisaka S, Shishido S, Taniguchi E, Kawaguchi T, Hanada S, Koga H, Kumashiro R, Ueno T, Suganuma T, Furuta K, Namba M, Sugiyama T, Sata M: Wilson disease protein ATP7B is localized in the late endosomes in a polarized human hepatocyte cell line. Int. J. Mol. Med. 11(3): 293-298 (2003).