BAP1 Protein, Human

Cat. No.:	HY-P701462
Synonyms:	BAP1; Ubiquitin carboxyl-terminal hydrolase BAP1; BRCA1-associated protein 1; Cerebral protein 6
Species:	Human
Source:	E. coli
Accession:	Q92560 (N2-Q729)
Gene ID:	8314
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	The BAP1 protein functions as a deubiquitinating enzyme with a critical role in chromatin regulation, mediating the deubiquitination of histone H2A and HCFC1. As a catalytic component of the PR-DUB complex, it specifically targets histone H2A monoubiquitinated at 'Lys-119' (H2AK119ub1), highlighting its involvement in chromatin dynamics. BAP1 does not deubiquitinate monoubiquitinated histone H2B. It further serves as a regulator of cell growth by mediating the deubiquitination of HCFC1 N-terminal and C-terminal chains, displaying specificity towards 'Lys-48'-linked polyubiquitin chains compared to 'Lys-63'-linked polyubiquitin chains. Intriguingly, the deubiquitination of HCFC1 by BAP1 does not lead to an increase in HCFC1 stability. BAP1 interferes with the BRCA1 and BARD1 heterodimer activity, inhibiting their ability to mediate ubiquitination and autoubiquitination, although it does not directly mediate deubiquitination of BRCA1 and BARD1. Moreover, BAP1 can undergo autodeubiquitination via intramolecular interactions, counteracting monoubiquitination at the nuclear localization signal (NLS) and thereby protecting it from cytoplasmic sequestration. This multifaceted functionality positions BAP1 as a tumor suppressor.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA