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phospho-COP1 (Ser387) Rabbit pAb

Catalog # AP97570

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8NHY2
Other Accession	Q8NHY2
Reactivity	Rat
Predicted	Human, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	80474
Physical State	Liquid
Immunogen	KLH conjugated synthesised phosphopeptide derived from human COP1 around the phosphorylation site of Ser387
Epitope Specificity	TA(p-S)QL
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the COP1 family. Contains 1 RING-type zinc finger. Contains 7 WD repeats.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	COP1 is an E3 ubiquitin ligase protein that mediates ubiquitination and degradation of target proteins such as c-Jun and p53. It is a component of the DCX DET1-COP1 ubiquitin ligase complex which consists of RBX1, DET1, DDB1, CUL4A and COP1. Localizing to the cytoplasm and to the nucleus, COP1 is primarily expressed in testis, placenta, heart and skeletal muscle. COP1 is a potent inhibitor of p53-dependent transcription and apoptosis but, when phosphorylated by Atm (ataxia telangiectasia mutated) in response to DNA damage, the COP1-p53 complex is disrupted and p53 is allowed to exert its pro-apoptotic properties. In ovarian and breast cancers, COP1 is overexpressed, suggesting a role for COP1 in tumorigenesis.

Additional Information

Gene ID	64326
Other Names	CFAP78; FAP78; RFWD2; RNF200; COP1_HUMAN; COP1; Constitutive photomorphogenesis protein 1 homolog (hCOP1); RING finger and WD repeat domain protein 2; RING finger protein 200; RING-type E3 ubiquitin transferase RFWD2; 2.3.2.27; COP1_MOUSE; Constitutive photomorphogenesis protein 1 homolog (mCOP1); COP1 E3 ubiquitin ligase; ring finger and WD repeat domain 2; constitutive photomorphogenic protein 1 (Arabidopsis); COP1 (phospho-S387); p-COP1; phospho-COP1; COP1 (phospho-Ser387)

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	COP1 (HGNC:17440)
Function	E3 ubiquitin-protein ligase that mediates ubiquitination and subsequent proteasomal degradation of target proteins. E3 ubiquitin ligases accept ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Involved in JUN ubiquitination and degradation. Directly involved in p53 (TP53) ubiquitination and degradation, thereby abolishing p53-dependent transcription and apoptosis. Ubiquitinates p53 independently of MDM2 or RCHY1. Probably mediates E3 ubiquitin ligase activity by functioning as the essential RING domain subunit of larger E3 complexes. In contrast, it does not constitute the catalytic RING subunit in the DCX DET1-COP1 complex that negatively regulates JUN, the ubiquitin ligase activity being mediated by RBX1. Involved in 14-3-3 protein sigma/SFN ubiquitination and proteasomal degradation, leading to AKT activation and promotion of cell survival. Ubiquitinates MTA1 leading to its proteasomal degradation. Upon binding to TRIB1, ubiquitinates CEBPA, which lacks a canonical COP1-binding motif (Probable).
Cellular Location	Nucleus speckle. Cytoplasm. Note=In the nucleus, it forms nuclear speckles
Tissue Location	Ubiquitously expressed at low level. Expressed at higher level in testis, placenta, skeletal muscle and heart

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.