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APPBP1 Rabbit pAb

Catalog # AP98898

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q13564
Other Accession	Q13564
Reactivity	Rat, Human, Mouse
Predicted	Pig, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60246
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human APPBP1
Epitope Specificity	401-500/534
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 ubiquitin-activating E1 family. ULA1 subfamily.
SUBUNIT	Heterodimer of UBA3 and NAE1. The complex binds NEDD8 and UBE2M. Binds APP and TP53BP2.
Post-translational modifications	Ubiquitinated by TRIP12, leading to its degradation by the proteasome.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	APPBP1 is a member of the ubiquitin-activating E1 family. In fetal tissues APPBP1 is widely expressed and in adult tissues it is expressed throughout the brain. APPBP1 is a cell membrane associated protein and functions as the regulatory subunit in a heterodimer with UBA3. The APPBP1/UBA3 complex binds to and activates NEDD8, a ubiquitin-like protein involved in signal transduction, cell proliferation and development. This suggests that APPBP1 affects a variety of cellular functions. In addition, APPBP1 is essential for cell cycle progression through the S/M checkpoint. More specifically, it inhibits the entry into S phase and promotes entry into M phase.

Additional Information

Gene ID	8883
Other Names	A-116A10.1; APPBP1; HPP1; NEDFIH; ula-1; 59kDa; ULA1_HUMAN; NAE1; Amyloid beta precursor protein-binding protein 1, 59 kDa (APP-BP1); Amyloid protein-binding protein 1; Proto-oncogene protein 1; ULA1_MOUSE; NEDD8 activating enzyme E1 subunit 1; amyloid beta precursor protein binding protein 1, 59kDa
Dilution	WB=1:500-2000,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	NAE1
Synonyms	APPBP1
Function	Regulatory subunit of the dimeric UBA3-NAE1 E1 enzyme. E1 activates NEDD8 by first adenylating its C-terminal glycine residue with ATP, thereafter linking this residue to the side chain of the catalytic cysteine, yielding a NEDD8-UBA3 thioester and free AMP. E1 finally transfers NEDD8 to the catalytic cysteine of UBE2M. Necessary for cell cycle progression through the S-M checkpoint. Overexpression of NAE1 causes apoptosis through deregulation of NEDD8 conjugation. The covalent attachment of NEDD8 to target proteins is known as 'neddylation' and the process is involved in the regulation of cell growth, viability and development.
Cellular Location	Cell membrane. Note=Colocalizes with APP in lipid rafts
Tissue Location	Ubiquitous in fetal tissues. Expressed throughout the adult brain.

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