

Cullin 7 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP59153

Specification

Cullin 7 Polyclonal Antibody - Product Information

Application

Primary Accession

Reactivity

Host

Clonality

Calculated MW

WB, IHC-P, IHC-F, IF, E

O14999

Rat, Dog, Bovine

Rabbit

Polyclonal

191161

Cullin 7 Polyclonal Antibody - Additional Information

Gene ID 9820

Other Names

Cullin-7, CUL-7, CUL7, KIAA0076

Dilution

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<span class ="dilution_WB">WB~~1:1000</span><br \><span class
="dilution_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution_IF">IF~~1:50~200</span><br \><span class ="dilution_E">E~~N/A</span>
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Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 $^{\circ}$ 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 $^{\circ}$ C.

Cullin 7 Polyclonal Antibody - Protein Information

Name CUL7

Synonyms KIAA0076

Function

Core component of the 3M and Cul7-RING(FBXW8) complexes, which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:<a

 $href="http://www.uniprot.org/citations/12481031" target="_blank">12481031, PubMed:12904573, PubMed:21572988, PubMed:21737058, PubMed:24793695, PubMed:35982156). Core$



component of the 3M complex, a complex required to regulate microtubule dynamics and genome integrity (PubMed: 21572988, PubMed:21737058, PubMed:24793695). It is unclear how the 3M complex regulates microtubules, it could act by controlling the level of a microtubule stabilizer (PubMed: 24793695). The Cul7-RING(FBXW8) complex alone lacks ubiquitination activity and does not promote polyubiquitination and proteasomal degradation of p53/TP53 (PubMed:16547496, PubMed:17332328, PubMed:35982156). However it mediates recruitment of p53/TP53 for ubiquitination by neddylated CUL1-RBX1 (PubMed: 35982156). Interaction with CUL9 is required to inhibit CUL9 activity and ubiquitination of BIRC5 (PubMed: 24793696). The Cul7-RING(FBXW8) complex also mediates ubiquitination and consequent degradation of target proteins such as GORASP1, IRS1 and MAP4K1/HPK1 (PubMed: 21572988, PubMed:24362026). Ubiquitination of GORASP1 regulates Golgi morphogenesis and dendrite patterning in brain (PubMed:21572988). Mediates ubiquitination and degradation of IRS1 in a mTOR-dependent manner: the Cul7-RING(FBXW8) complex recognizes and binds IRS1 previously phosphorylated by S6 kinase (RPS6KB1 or RPS6KB2) (PubMed: 18498745). The Cul7-RING(FBXW8) complex also mediates ubiquitination of MAP4K1/HPK1: recognizes and binds autophosphorylated MAP4K1/HPK1, leading to its degradation, thereby affecting cell proliferation and differentiation (PubMed: 24362026). Acts as a regulator in trophoblast cell epithelial-mesenchymal transition and placental development (PubMed:20139075). While the Cul7-RING(FBXW8) and the 3M complexes are associated and involved in common processes, CUL7 and the Cul7-RING(FBXW8) complex may have additional functions. Probably plays a role in the degradation of proteins involved in endothelial proliferation and/or differentiation.

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, perinuclear region. Golgi apparatus. Note=Colocalizes with FBXW8 at the Golgi apparatus in neurons; localization to Golgi is mediated by OBSL1. During mitosis, localizes to the mitotic apparatus (PubMed:24793695). CCDC8 is required for centrosomal location (PubMed:24793695)

Tissue Location

Highly expressed in fetal kidney and adult skeletal muscle. Also abundant in fetal brain, as well as in adult pancreas, kidney, placenta and heart. Detected in trophoblasts, lymphoblasts, osteoblasts, chondrocytes and skin fibroblasts

Cullin 7 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry





• <u>Immunofluorescence</u>

- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Cullin 7 Polyclonal Antibody - Images