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UBE3C Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20457c

Product Information

Application	WB, E
Primary Accession	Q15386
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	123923
Antigen Region	549-578

Additional Information

Gene ID	9690
Other Names	Ubiquitin-protein ligase E3C, 632-, HectH2, UBE3C, KIAA0010, KIAA10
Target/Specificity	This UBE3C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 549-578 amino acids from the Central region of human UBE3C.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	UBE3C Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UBE3C {ECO:0000303|PubMed:17323924, ECO:0000312|HGNC:HGNC:16803}
Function	E3 ubiquitin-protein ligase that specifically catalyzes 'Lys- 29'- and 'Lys-48'-linked polyubiquitin chains (PubMed:11278995, PubMed:12692129, PubMed:16341092, PubMed:16601690, PubMed:24158444, PubMed:24811749, PubMed:25752573, PubMed:25752577, PubMed:32039437, PubMed:33637724, PubMed:34239127). Accepts ubiquitin

from the E2 ubiquitin-conjugating enzyme UBE2D1 in the form of a thioester and then directly transfers the ubiquitin to targeted substrates (PubMed:32039437, PubMed:9575161). Associates with the proteasome and promotes elongation of ubiquitin chains on substrates bound to the 26S proteasome (PubMed:24158444, PubMed:28396413, PubMed:31375563). Also catalyzes 'Lys-29'- and 'Lys-48'-linked ubiquitination of 26S proteasome subunit ADRM1/RPN13 in response to proteotoxic stress, impairing the ability of the proteasome to bind and degrade ubiquitin- conjugated proteins (PubMed:24811749, PubMed:31375563). Acts as a negative regulator of autophagy by mediating 'Lys-29'- and 'Lys-48'- linked ubiquitination of PIK3C3/VPS34, promoting its degradation (PubMed:33637724). Can assemble unanchored poly-ubiquitin chains in either 'Lys-29'- or 'Lys-48'-linked polyubiquitin chains; with some preference for 'Lys-48' linkages (PubMed:11278995, PubMed:16601690, PubMed:25752577). Acts as a negative regulator of type I interferon by mediating 'Lys-48'-linked ubiquitination of IRF3 and IRF7, leading to their degradation by the proteasome (PubMed:21167755). Catalyzes ubiquitination and degradation of CAND2 (PubMed:12692129).

Tissue Location Highly expressed in skeletal muscle. Detected at much lower levels in kidney and pancreas.

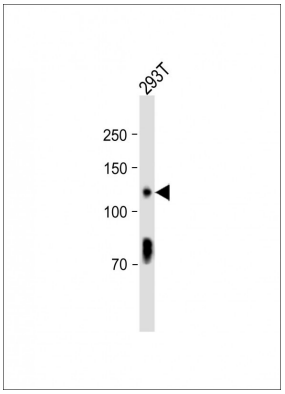
Background

E3 ubiquitin-protein ligase that accepts ubiquitin from the E2 ubiquitin-conjugating enzyme UBE2D1 in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Can assemble unanchored poly-ubiquitin chains in either 'Lys-29'-or 'Lys-48'-linked polyubiquitin chains. Has preference for 'Lys-48' linkages. It can target itself for ubiquitination in vitro and may promote its own degradation in vivo.

References

Nomura N., et al. DNA Res. 1:27-35(1994).
Hillier L.W., et al. Nature 424:157-164(2003).
Scherer S.W., et al. Science 300:767-772(2003).
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
You J., et al. J. Biol. Chem. 276:19871-19878(2001).

Images



All lanes: Anti-UBE3CAntibody(Center) at 1:1000 dilution + 293T whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 124 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- UBE3C Facilitates the ER-Associated and Peripheral Degradation of Misfolded CFTR