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Anti-USP30 Antibody

Catalog # AP51604

Product Information

Application	WB, IF/IC
Primary Accession	Q70CQ3
Reactivity	Human, Mouse, Rat, Dog, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58503

Additional Information

Gene ID	84749
Other Names	Ubiquitin carboxyl-terminal hydrolase 30; Deubiquitinating enzyme 30; Ubiquitin thioesterase 30; Ubiquitin-specific-processing protease 30; Ub-specific protease 30
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human USP30. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

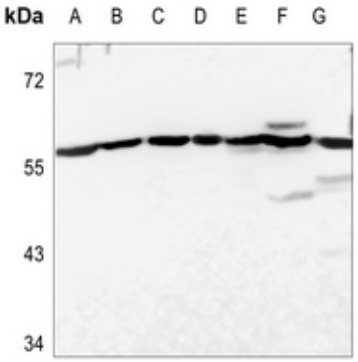
Name	USP30 (HGNC:20065)
Function	Deubiquitinating enzyme tethered to the mitochondrial outer membrane that acts as a key inhibitor of mitophagy by counteracting the action of parkin (PRKN): hydrolyzes ubiquitin attached by parkin on target proteins, such as RHOT1/MIRO1 and TOMM20, thereby blocking parkin's ability to drive mitophagy (PubMed:18287522, PubMed:24896179, PubMed:25527291, PubMed:25621951). Preferentially cleaves 'Lys-6'- and 'Lys-11'-linked polyubiquitin chains, 2 types of linkage that participate in mitophagic signaling (PubMed:25621951). Does not cleave efficiently polyubiquitin phosphorylated at 'Ser-65' (PubMed:25527291). Acts as a negative regulator of mitochondrial fusion by mediating deubiquitination of MFN1 and MFN2 (By similarity).
Cellular Location	Mitochondrion outer membrane

Tissue Location	Expressed in skeletal muscle, pancreas, liver and kidney.

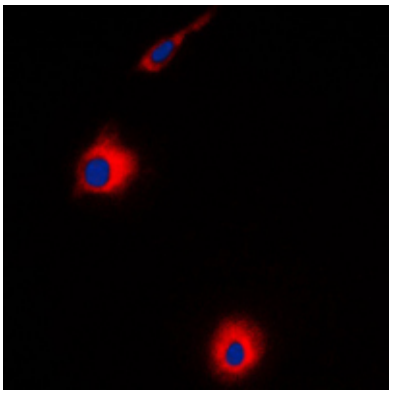
References

Quesada V.,et al.Biochem. Biophys. Res. Commun. 314:54-62(2004).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Nakamura N.,et al.Mol. Biol. Cell 19:1903-1911(2008).

Images



Western blot analysis of USP30 expression in MCF7 (A), A549 (B), U2OS (C), mouse liver (D), mouse kidney (E), rat liver (F), rat kidney (G) whole cell lysates. (Predicted band size: 58 kD; Observed band size: 59 kD)



Immunofluorescent analysis of USP30 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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