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USP29 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2153c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9HBJ7
Other Accession	NP_065954
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4373
Calculated MW	104156
Antigen Region	660-690

Additional Information

Gene ID	57663
Other Names	Ubiquitin carboxyl-terminal hydrolase 29, Deubiquitinating enzyme 29, Ubiquitin thioesterase 29, Ubiquitin-specific-processing protease 29, USP29
Target/Specificity	This USP29 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 660-690 amino acids from the Central region of human USP29.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	USP29 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	USP29 {ECO:0000303|PubMed:10958632, ECO:0000312|HGNC:HGNC:18563}
Function	Deubiquitinase involved in innate antiviral immunity by mediating 'Lys-48'-linked deubiquitination of CGAS, thereby promoting its stabilization.

Cellular Location	Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q9ES63}. Note=Localizes to perinuclear region in response to herpes simplex virus-1 (HSV-1) infection {ECO:0000250|UniProtKB:Q9ES63}

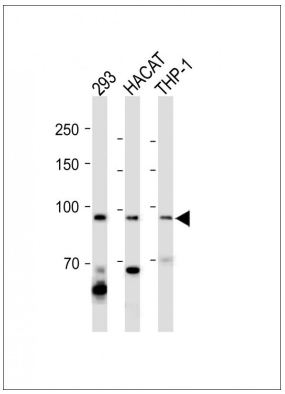
Background

Modification of target proteins by ubiquitin participates in a wide array of biological functions. Proteins destined for degradation or processing via the 26 S proteasome are coupled to multiple copies of ubiquitin. However, attachment of ubiquitin or ubiquitin-related molecules may also result in changes in subcellular distribution or modification of protein activity. An additional level of ubiquitin regulation, deubiquitination, is catalyzed by proteases called deubiquitinating enzymes, which fall into four distinct families. Ubiquitin C-terminal hydrolases, ubiquitin-specific processing proteases (USPs),1 OTU-domain ubiquitin-aldehyde-binding proteins, and Jab1/Pad1/MPN-domain-containing metallo-enzymes. Among these four families, USPs represent the most widespread and represented deubiquitinating enzymes across evolution. USPs tend to release ubiquitin from a conjugated protein. They display similar catalytic domains containing conserved Cys and His boxes but divergent N-terminal and occasionally C-terminal extensions, which are thought to function in substrate recognition, subcellular localization, and protein-protein interactions.

References

Puente, X.S., et al., Nat. Rev. Genet. 4(7):544-558 (2003).
Tureci, O., et al., Oncogene 21(24):3879-3888 (2002).
Kim, J., et al., Genome Res. 10(8):1138-1147 (2000).

Images



All lanes: Anti-hUSP29-T675 at 1:1000 dilution Lane 1: 293 whole cell lysate Lane 2: HACAT whole cell lysate Lane 3: THP-1 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: 95 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- USP29 activation mediated by FUBP1 promotes AURKB stability and oncogenic functions in gastric cancer
- USP29 coordinates MYC and HIF1α stabilization to promote tumor metabolism and progression