

Anti-UBP43 (RABBIT) Antibody
UBP43 Antibody
Catalog # ASR5250**Specification**

Anti-UBP43 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 43 kDa in size corresponding to UB43 by western blotting in the appropriate cell lysate or extract.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 25-50 of human UB43 protein.
Preservative	0.01% (w/v) Sodium Azide

Anti-UBP43 (RABBIT) Antibody - Additional Information**Gene ID** 11274**Other Names**
11274**Purity**

This affinity-purified antibody is directed against human UB43 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human, chimpanzee and orangutan based on 100% homology for the immunogen sequence. The core 7 amino acid sequence QPRERPR of the 10 amino acid immunogen sequence may be reactive with UB43 from mouse and dog. This core sequence also shows partial homology with proteins other than UB43. Cross reactivity with UB43 homologues from other sources has not been determined.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after

standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-UBP43 (RABBIT) Antibody - Protein Information

Name USP18

Synonyms ISG43

Function

Interferon-induced ISG15-specific protease that plays a crucial role for maintaining a proper balance of ISG15-conjugated proteins in cells (PubMed:11788588). Regulates protein ISGylation by efficiently cleaving ISG15 conjugates linked via isopeptide bonds. Regulates T-cell activation and T-helper 17 (Th17) cell differentiation by deubiquitinating TAK1, likely to keep TAK1-TAB complexes in steady conditions (PubMed:23825189). In turn, restricts activation of NF- kappa-B, NFAT, and JNK as well as expression of IL2 in T-cells after TCR activation (PubMed:23825189). Acts as a molecular adapter with USP20 to promote innate antiviral response through deubiquitinating STING1 (PubMed:27801882). Involved also in the negative regulation of the inflammatory response triggered by type I interferon (PubMed:27325888, PubMed:28165510). Upon recruitment by STAT2 to the type I interferon receptor subunit IFNAR2 interferes with the assembly of the ternary interferon-IFNAR1-IFNAR2 complex and acts as a negative regulator of the type I interferon signaling pathway (PubMed:28165510).

Cellular Location

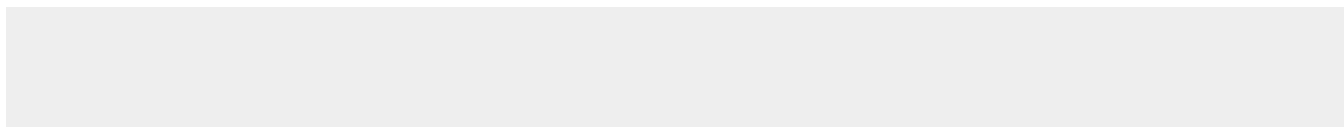
[Isoform 1]: Cytoplasm

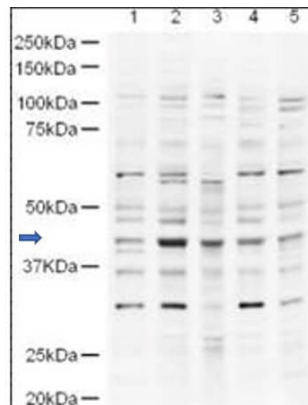
Anti-UBP43 (RABBIT) Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-UBP43 (RABBIT) Antibody - Images





Western blot using Rockland's Affinity Purified anti-UBP43 antibody. Lane 1: HeLa nuclear extracts (p/n W09-001-367). Lane 2: HeLa whole cell lysates (W09-000-364). Lane 3: A431 whole cell lysates (p/n W09-000-361). Lane 4: Jurkat whole cell lysates (W09-001-370). Lane 5: HEK293 whole cell lysates (p/n W09-000-365). Load: 18 µg. Primary Antibody: anti-UBP43 at 1:500. Shows detection of a band ~43 kDa band (arrowhead) believed to be to UB43 in lysates. The strong band between the 37kD and 50kD markers is expected to be UB43. The other bands are probably non-specific.

Anti-UBP43 (RABBIT) Antibody - Background

UBP43 (also known as ISG43, Ubl thiolesterase 18, ISG15-specific processing protease, 43 kDa ISG15-specific protease, ubiquitin specific protease 18 or USP18) is a member of the deubiquitinating protease family of enzymes, which removes ubiquitin adducts from a broad range of protein substrates. Deletion of the UB43 gene in mouse leads to a massive increase of ISG15 conjugates in tissues indicating that UB43 is a major ISG15-specific protease. UB43 is the first ISG15-specific protease reported. Both ISG15 and UB43 genes are known to be strongly induced by interferon, genotoxic stress, and viral infection. Thus UB43 may be necessary to maintain a critical cellular balance of ISG15-conjugated proteins in both healthy and stressed organisms.