

USP25 Antibody

Rabbit Polyclonal Antibody Catalog # ABV11136

Specification

USP25 Antibody - Product Information

Application Primary Accession Reactivity

Host Clonality Isotype

Calculated MW

WB

Q9UHP3

Human, Mouse, Rat

Rabbit Polyclonal Rabbit IgG 122218

USP25 Antibody - Additional Information

Gene ID 29761

Positive Control Application & Usage Western Blot: BxPC-3 cell lysate Western blot: 1:500 - 1:1000 dilution. However, the optimal conditions should be determined individually.

Other Names USP25, USP21

Target/Specificity USP25

Antibody Form Liquid

Appearance Colorless liquid

Formulation

100 μg of antibody in 100 μl PBS containing 0.02% sodium azide, 50% glycerol, pH 7.3

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage -20 °C

Background Descriptions

Precautions

USP25 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



USP25 Antibody - Protein Information

Name USP25

Synonyms USP21

Function

Deubiquitinating enzyme that hydrolyzes ubiquitin moieties conjugated to substrates and thus, functions in various biological processes including inflammation, immune response (PubMed: 29518389, PubMed:37683630). Modulates the Wnt/beta-catenin pathway by deubiquitinating and stabilizing tankyrases TNKS1 and TNKS2 (PubMed:28619731, PubMed:30926243). Regulates KEAP1-NRF2 axis in the defense against oxidative assaults by deubiquitinating KEAP1 and protecting it from degradation leading to degradation of the NRF2 transcription factor that is responsible for mounting an anti-oxidation gene expression program (PubMed:37339955). Positively regulates RNA virus-induced innate signaling by interacting with and deubiquitinating ERLIN1 and ERLIN2 (PubMed:37683630). In turn, restricts virus production by regulating cholesterol biosynthetic flux (PubMed:37683630). Acts as a negative regulator of interleukin-17- mediated signaling and inflammation through the removal of 'Lys-63'- linked ubiquitination of TRAF5 and TRAF6 (PubMed:23042150). Prevents the ubiquitination and degradation of TRAF3 to reduce the phosphorylation levels of INK and P38, the secretion of IL-1B and to induce endotoxin tolerance (PubMed:30579117).

Cellular Location Cytoplasm

Tissue Location

Isoform USP25a is found in most adult and fetal tissues; expression is moderately high in testis, pancreas, kidney, skeletal muscle, liver, lung, placenta, brain, heart, but very low in peripheral blood, colon, small intestine, ovary, prostate, thymus and spleen. Isoform USP25b is found in all tissues except heart and skeletal muscle. Isoform USP25m is heart and skeletal muscle specific

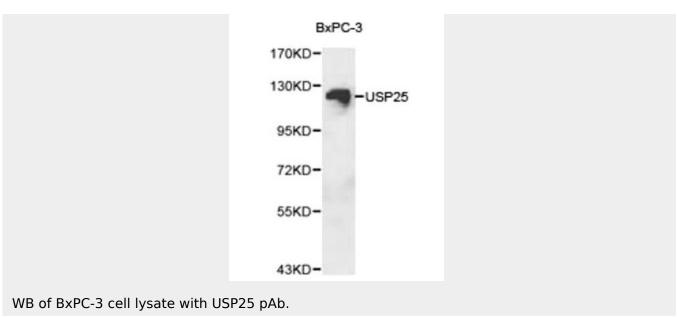
USP25 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

USP25 Antibody - Images





USP25 Antibody - Background

Ubiquitinating enzymes (UBEs) catalyze protein ubiquitination, a reversible process countered by deubiquitinating enzymes (DUB) action. There are five DUB subfamilies including the USP, UCH, OTU, MJD, and JAMM enzymes. USP25 (ubiquitin specific peptidase 25), also known as USP21, is a 1087 amino acid member of the peptidase C19 family. Expressed at high amounts in pancreas, kidney, skeletal muscle, testis, liver, heart, brain and lung, USP25 associates with the 26S proteasome and functions as a deubiquitinating enzyme in the Ub proteolytic pathway. Due to alternative splicing events, USP25 is expressed as two short, ubiquitously expressed isoforms and one long, muscle specific isoform. The long isoform of USP25 is upregulated in myogenesis and is implicated in the pathogenesis of severe myopathies.