

USP1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11133**Specification**

USP1 Antibody - Product Information

Application	WB
Primary Accession	O94782
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	88207

USP1 Antibody - Additional Information**Gene ID** 7398

Positive Control
Application & Usage

Western Blot: HEK-293 & HeLa cell lysates
Western blot: 1:200 - 1:500 dilution, IHC:
1:50 - 1:100 dilution. However, the optimal
conditions should be determined
individually.

Other Names
USP1, UBP

Target/Specificity
USP1

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
USP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

USP1 Antibody - Protein Information

Name USP1

Function

Negative regulator of DNA damage repair which specifically deubiquitinates monoubiquitinated FANCD2 (PubMed:15694335). Also involved in PCNA-mediated translesion synthesis (TLS) by deubiquitinating monoubiquitinated PCNA (PubMed:16531995, PubMed:20147293). Has almost no deubiquitinating activity by itself and requires the interaction with WDR48 to have a high activity (PubMed:18082604, PubMed:26388029).

Cellular Location

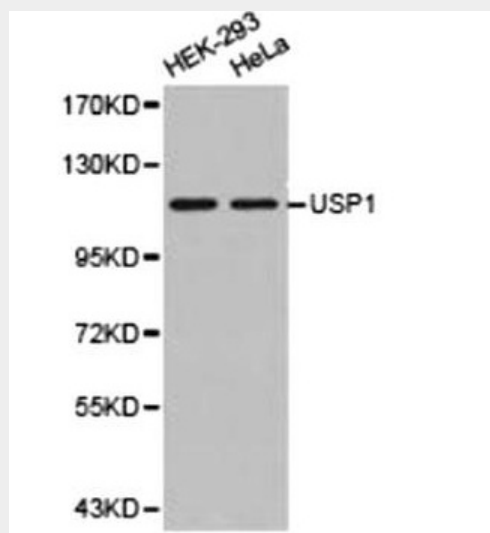
Nucleus.

USP1 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](#)

USP1 Antibody - Images



WB of HEK-293 and HeLa cell lysates with USP1 pAb.

USP1 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. USP1 belongs to the USP subfamily and is regulated in a cell cycle dependent manner by both transcriptional and ubiquitinproteosomal mechanisms. USP1 is a nuclear protein and localizes to chromatin where it is specifically associated with FANCD2. USP1 deubiquitinates monoubiquitinated FANCD2, which plays an important role in DNA damage repair and Chk1 protein stability. USP1 deubiquitinates monoubiquitinated PCNA, thereby negatively regulating PCNA mediated translation synthesis (TLS) during DNA repair. USP1 interaction with UAF1, a WD40 repeat containing protein, leads to formation of an activated USP1/UAF1 complex, which is required for the deubiquitinase activity of USP1.