

## **USP7** rabbit-FC recombinant protein

Catalog No: YD3111

Reactivity: Human;

**Purity:** >90% as determined by SDS-PAGE

Gene Name: USP7

**Protein Name:** Ubiquitin carboxyl-terminal hydrolase 7

**Sequence:** Amino acid:1-230, with rabbit FC tag.

Q93009

**Human Gene Id:** 7874

**Human Swiss Prot** 

No:

**Formulation:** Phosphate-buffered solution

**Source :** Mammalian cells

**Storage Stability:** -15°C to -25°C/1 year(Avoid freeze / thaw cycles)

**Background:** The protein encoded by this gene belongs to the peptidase C19 family, which

includes ubiquitinyl hydrolases. This protein deubiquitinates target proteins such as p53 (a tumor suppressor protein) and WASH (essential for endosomal protein recycling), and regulates their activities by counteracting the opposing ubiquitin ligase activity of proteins such as HDM2 and TRIM27, involved in the respective process. Mutations in this gene have been implicated in a neurodevelopmental

disorder. [provided by RefSeq, Mar 2016],

**Function :** catalytic activity:Ubiquitin C-terminal thioester + H(2)O = ubiquitin + a

thiol.,enzyme regulation:Inhibited by N-ethyl-maleimide (NEM) and divalent cations. Tolerates high concentrations of NaCl but is inhibited at concentrations of

195 mM and higher, function: Cleaves ubiquitin fusion protein substrates.

Deubiquitinates TP53/p53 and MDM2 and strongly stabilizes TP53 even in the presence of excess MDM2, and also induces TP53-dependent cell growth

repression and

apoptosis.,PTM:Polyneddylated.,PTM:Polyubiquitinated.,similarity:Belongs to the

peptidase C19 family., similarity: Contains 1 MATH domain., subcellular

location: Present in a minority of ND10 nuclear bodies. Association with VMW110



at early times of infection leads to an increased proportion of USP7-containing ND10. Colocalizes with ATXN1 in the nucleus.,subunit:Monomer. Interacts with TP53, MDM2 and UBXN6. Interacts with herpesvirus

## Subcellular Location:

Nucleus . Cytoplasm . Nucleus, PML body . Chromosome . Present in a minority of ND10 nuclear bodies. Association with ICP0/VMW110 at early times of infection leads to an increased proportion of USP7-containing ND10. Colocalizes with ATXN1 in the nucleus. Colocalized with DAXX in speckled structures. Colocalized with PML and PTEN in promyelocytic leukemia protein (PML) nuclear bodies.

## **Expression:**

Expressed in neural progenitor cells (at protein level) (PubMed:21258371). Widely expressed. Overexpressed in prostate cancer.

## **Products Images**