Anti-USP15 antibody

Description	USP15 is a protein encoded by the USP15 gene which is approximately 112,4 kDa. USP15 is localised to the cytoplasm and nucleus. It is involved in pathways such as deubiquitination, metabolism of proteins, mitophagy and NF-kappaB signalling. USP15 falls under the ubiquitin specific protease family of deubiquitinating enzymes. It plays a critical role in ubiquitin-dependent processes through polyubiquitin chain disassembly and hydrolysis of ubiquitin-substrate bonds. It is a hydrolase that removes conjugated ubiquitin from target proteins and regulates various pathways. USP15 is expressed in skeletal muscle, kidney, heart, placenta, liver, thymus, lung, and ovaries. Mutations in the USP15 gene result in speech and communication disorders and isolated microphthalmia. STJ96195 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of USP15 protein.

Model	STJ96195
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human USP15
Immunogen Region	50-130 aa, N-terminal
Gene ID	9958
Gene Symbol	USP15
Dilution range	WB 1:500-1:2000ELISA 1:10000

Specificity	USP15 Polyclonal Antibody detects endogenous levels of USP15 protein.
Tissue Specificity	Expressed in skeletal muscle, kidney, heart, placenta, liver, thymus, lung, and ovary, with little or no expression in other tissues.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Ubiquitin carboxyl-terminal hydrolase 15 Deubiquitinating enzyme 15 Ubiquitin thioesterase 15 Ubiquitin-specific-processing protease 15 Unph-2 Unph4
Molecular Weight	115 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:12613OMIM:604731
Alternative Names	Ubiquitin carboxyl-terminal hydrolase 15 Deubiquitinating enzyme 15 Ubiquitin thioesterase 15 Ubiquitin-specific-processing protease 15 Unph-2 Unph4
Function	Hydrolase that removes conjugated ubiquitin from target proteins and regulates various pathways such as the TGF-beta receptor signaling and NF-kappa-B pathways. Acts as a key regulator of TGF-beta receptor signaling pathway, but the precise mechanism is still unclear: according to a report, acts by promoting deubiquitination of monoubiquitinated R-SMADs (SMAD1, SMAD2 and/or SMAD3), thereby alleviating inhibition of R-SMADs and promoting activation of TGF-beta target genes . According to another reports, regulates the TGF-beta receptor signaling pathway by mediating deubiquitination and stabilization of TGFBR1, leading to an enhanced TGF-beta signal . Able to mediate deubiquitination of monoubiquitinated substrates as well as 'Lys-48'-linked polyubiquitin chains, protecting them against proteasomal degradation. May also regulate gene expression and/or DNA repair through the deubiquitination of histone H2B . Acts as an associated component of COP9 signalosome complex (CSN) and regulates different pathways via this association: regulates NF-kappa-B by mediating deubiquitination of NFKBIA and deubiquitinates substrates bound to VCP . Involved in endosome organization by mediating deubiquitination of SQSTM1: ubiquitinated SQSTM1 forms a molecular bridge that restrains cognate vesicles in the perinuclear region and its deubiquitination releases target vesicles for fast transport into the cell periphery . (Microbial infection) Protects APC and human papillomavirus type 16 protein E6 against degradation via the ubiquitin proteasome pathway.
Cellular Localization	Cytoplasm Nucleus
Post-translational	Phosphorylated. Phosphorylation protects against ubiquitination and

Modifications	subsequent degradation by the proteasome. Ubiquitinated, leading to degradation by the proteasome.