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DATA SHEET

Mouse Anti-USP15 (Ubiquitin Specific Peptidase 15) [B5]: MC0451, MC0451RTU7

Intended Use: For Research Use Only

Description: The ubiquitin pathway involves three sequential enzymatic steps that facilitate the conjugation of ubiquitin and ubiquitin-like molecules to specific protein substrates. Protein ubiquitination and deubiquitination are reversible processes catalyzed by ubiquitinating enzymes and deubiquitinating enzymes respectively. The USP15 gene is amplified in glioblastoma and other solid tumors and its high expression correlates with a poor prognosis. Research studies demonstrate that USP15 is a positive regulator of oncogenic TGF-β signaling and that USP15 deubiquitinates monoubiquitinated R-SMADs to enhance target gene promoter binding (5). USP15 also promotes oncogenic TGF-β signaling by opposing SMURF2-mediated ubiquitination of the type I TGF-β receptor, which facilitates receptor stabilization. USP15 contributes to oncogenesis by negatively regulating T cell-mediated antitumor responses through the deubiquitination and stabilization of the E3 ubiquitin ligase MDM2. This observation supports USP15 as a potential target for cancer therapeutics.

Specifications

Clone:	B5
Source:	Mouse
Isotype:	IgG2a/k
Reactivity:	Human, mouse, rat
Immunogen:	Human USP15 internal region aa 621-697
Localization:	Cytoplasm, nucleus
Formulation:	Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, IF, IP, WB

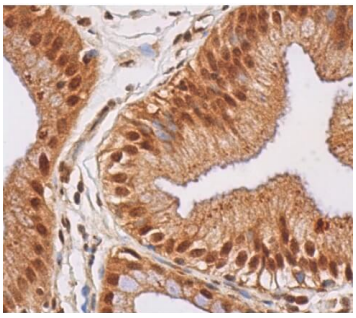
Package:

Description	Catalog No.	Size
USP15 (Ubiquitin Specific Peptidase 15) Concentrated	MC0451	1 ml
USP15 (Ubiquitin Specific Peptidase 15) Prediluted	MC0451RTU7	7 ml

IHC Procedure*

Positive Control Tissue:	Skeletal muscle, kidney, heart, placenta, liver, thymus, lung, and ovary
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human gall bladder stained with anti-USP15 using DAB showing cytoplasmic & nuclear staining of glandular cells

References:

1. USP15 Enhances Re-epithelialization Through Deubiquitinating EIF4A1 During Cutaneous Wound Repair. Zhao Y, et al. Front Cell Dev Biol 8:529, 2020.
2. LPS promotes HBO1 stability via USP25 to modulate inflammatory gene transcription in THP-1 cells. Chen Long, et al. Biochim Biophys Acta Gene Regul Mech. Sep;1861(9):773-782, 2018.

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