# Anti-SENP1 Antibody [JG37-79]

## ET7108-53

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|---|---|
| **Product Type:** | Recombinant Rabbit monoclonal IgG, primary antibodies |
| **Species reactivity:** | Human |
| **Applications:** | WB, IF-Cell, IF-Tissue, IHC-P, FC |
| **Molecular Wt:** | 73 kDa |
| **Clone number:** | JG37-79 |

**Description:** Protease that catalyzes two essential functions in the SUMO pathway. The first is the hydrolysis of an alpha-linked peptide bond at the C-terminal end of the small ubiquitin-like modifier (SUMO) propeptides, SUMO1, SUMO2 and SUMO3 leading to the mature form of the proteins. The second is the deconjugation of SUMO1, SUMO2 and SUMO3 from targeted proteins, by cleaving an epsilon-linked peptide bond between the C-terminal glycine of the mature SUMO and the lysine epsilon-amino group of the target protein. Deconjugates SUMO1 from HIPK2. Deconjugates SUMO1 from HDAC1 and BHLHE40/DEC1, which decreases its transcriptional repression activity. Deconjugates SUMO1 from CLOCK, which decreases its transcriptional activation activity. Deconjugates SUMO2 from MTA1. Desumoylates CCAR2 which decreases its interaction with SIRT1. Deconjugates SUMO1 from GPS2.

**Immunogen:** Recombinant protein within Human SENP1 aa 380-521 / 644.

**Positive control:** K562 cell lysates, LOVO, SH-SY-5Y, SiHa, human liver tissue, human small Intestine tissue, Daudi.

**Subcellular location:** Cytoplasm. Nucleus.

**Database links:** SwissProt: Q9P0U3 Human

**Recommended Dilutions:**

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|---|---|
| **WB** | 1:1,000-1:2,000 |
| **IF-Cell** | 1:50-1:200 |
| **IHC-P** | 1:50-1:200 |
| **FC** | 1:50-1:100 |

**Storage Buffer:** 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

**Purity:** Protein A affinity purified.

## Images

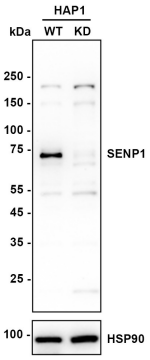


**Fig1:** Western blot analysis of SENP1 on different lysates with Rabbit anti-SENP1 antibody (ET7108-53) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-SENP1 KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 73 kDa
Observed band size: 73 kDa

Exposure time: 60 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET7108-53) at 1/2,000 dilution was used in K1803 at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

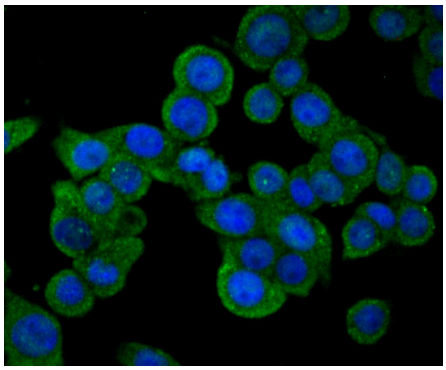

**Fig2:** Immunocytochemistry analysis of LOVO cells labeling SENP1 with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. Nuclear DNA was labelled in blue with DAPI.

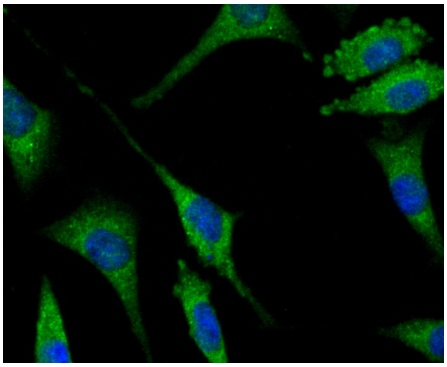

**Fig3:** Immunocytochemistry analysis of SH-SY-5Y cells labeling SENP1 with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution.Nuclear DNA was labelled in blue with DAPI.

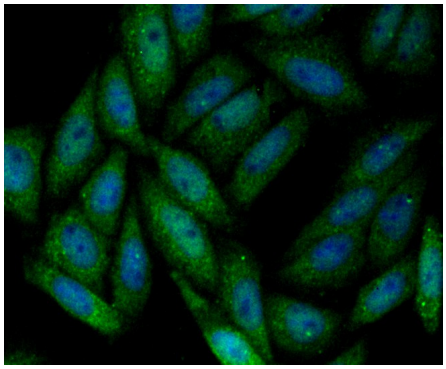

**Fig4:** Immunocytochemistry analysis of SiHa cells labeling SENP1 with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. Nuclear DNA was labelled in blue with DAPI.

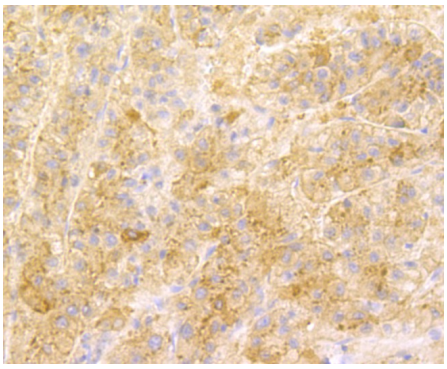

**Fig5:** Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with dd$H_2O$ and PBS, and then probed with the primary antibody (ET7108-53) at 1/50 dilution for 0.5 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

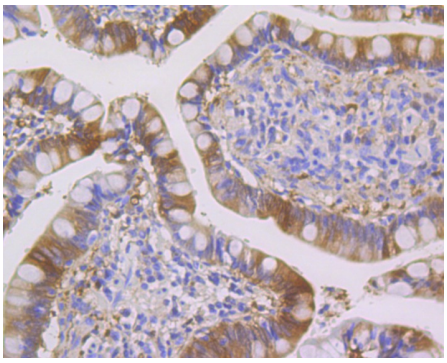

**Fig6:** Immunohistochemical analysis of paraffin-embedded human small Intestine tissue with Rabbit anti-SENP1 antibody (ET7108-53) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with dd$H_2O$ and PBS, and then probed with the primary antibody (ET7108-53) at 1/50 dilution for 0.5 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

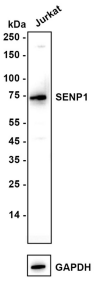


**Fig7:** Western blot analysis of SENP1 on different lysates with Rabbit anti-SENP1 antibody (ET7108-53) at 1/1,000 dilution.

Lane 1: Jurkat (Human T lymphocytic leukemia cell) cell lysate

Exposure time: 27 seconds; ECL: K1801

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: ET7108-53, 1/1,000 in 5% NFDM/TBST, overnight at 4 ℃
Secondary antibody: Goat anti- Rabbit IgG-HRP (HA1001), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 74 kDa
Observed band size: 74 kDa

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Gong L et al. Differential regulation of sentrinized proteins by a novel sentrin-specific protease. J Biol Chem 275:3355-3359 (2000).
2. Cheng J et al. SENP1 enhances androgen receptor-dependent transcription through desumoylation of histone deacetylase 1. Mol Cell Biol 24:6021-6028 (2004).