Anti-SFT Antibody [JE64-46]

HA722578

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IP
Molecular Wt:	Predicted band size: 17 kDa
Clone number:	JE64-46

Description: Ubiquitin-conjugating enzyme E2 D1 is a protein that in humans is encoded by the UBE2D1 gene. The modification of proteins with ubiquitin is an important cellular mechanism for targeting abnormal or short-lived proteins for degradation. Ubiquitination involves at least three classes of enzymes: ubiquitin-activating enzymes, or E1s, ubiquitin-conjugating enzymes, or E2s, and ubiquitin-protein ligases, or E3s. This gene encodes a member of the E2 ubiquitin-conjugating enzyme family. This enzyme is closely related to a stimulator of iron transport (SFT), and is up-regulated in hereditary hemochromatosis. It also functions in the ubiquitination of the tumor-suppressor protein p53 and the hypoxia-inducible transcription factor HIF1alpha by interacting with the E1 ubiquitin-activating enzyme and the E3 ubiquitin-protein ligases.

Immunogen: Synthetic peptide within human SFT aa 98-147 / 147.

Positive control: Jurkat cell lysate, K-562 cell lysate, Raji cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, Mouse kidney tissue lysate, Rat kidney tissue lysate, human kidney tissue, human thyroid gland carcinoma tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt: P51668 Human | P61080 Mouse | D3ZDK2 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:1,000-1:2,000
IP	1-2μg/sample

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). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

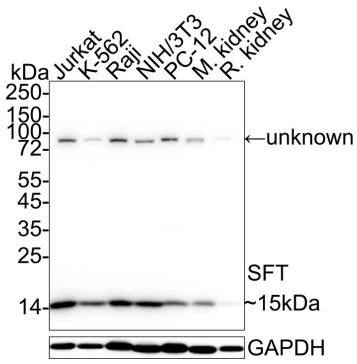

Fig1: Western blot analysis of SFT on different lysates with Rabbit anti-SFT antibody (HA722578) at 1/1,000 dilution.

Lane 1: Jurkat cell lysate
Lane 2: K-562 cell lysate
Lane 3: Raji cell lysate
Lane 4: NIH/3T3 cell lysate
Lane 5: PC-12 cell lysate
Lane 6: Mouse kidney tissue lysate
Lane 7: Rat kidney tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 17 kDa
Observed band size: 15 kDa

Exposure time: 10 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 (HA722578) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

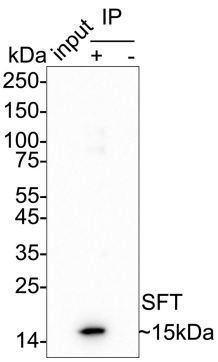

Fig2: SFT was immunoprecipitated from 0.2 mg Jurkat cell lysate with HA722578 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA722578 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: Jurkat cell lysate (input)
Lane 2: HA722578 IP in Jurkat cell lysate
Lane 3: Rabbit IgG instead of HA722578 in Jurkat cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 26 seconds; ECL: K1801

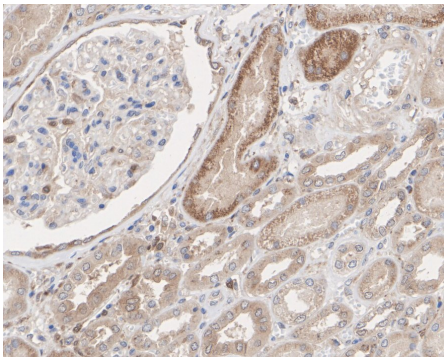

Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-SFT antibody (HA722578) at 1/2,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA722578) at 1/2,000 dilution for 1 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.

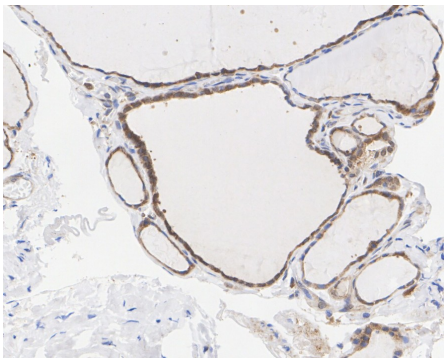

Fig4: Immunohistochemical analysis of paraffin-embedded human thyroid gland carcinoma tissue with Rabbit anti-SFT antibody (HA722578) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA722578) at 1/1,000 dilution for 1 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.

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

Background References

1. Guan XQ et al. IGF2BP2-modified UBE2D1 interacts with Smad2/3 to promote the progression of breast cancer. Am J Cancer Res. 2023 Jul
2. Wang X et al. UBE2D1 and COX7C as Potential Biomarkers of Diabetes-Related Sepsis. Biomed Res Int. 2022 Apr