Anti-SorLA Antibody [JE35-52]

HA721337

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 248 kDa
Clone number:	JE35-52

Description: Sortilin-related receptor, L(DLR class) A repeats containing is a protein that in humans is encoded by the SORL1 gene. SORL1 (also known as SORLA, SORLA1, or LR11) is a neuronal apolipoprotein E receptor, the gene for which is predominantly expressed in the central nervous system. Mutation of the gene for apolipoprotein E (APOE) is predictive of Alzheimer's disease. Lack of the APOE receptor is suspected to be a contributory factor to Alzheimer's: a significant reduction in SORL1 (LR11) expression has been found in brain tissue of Alzheimer's disease patients. The APOE receptor has also been linked with regulation of amyloid precursor protein, faulty processing of which is implicated in Alzheimer's. A more recent study by a group of international researchers supports the proposition that SORL1 plays a part in seniors developing Alzheimer's disease, the findings being significant across racial and ethnic strata.

Immunogen: Recombinant protein within Human SorLA aa 1,341-1,540 / 2,214.

Positive control: Jurkat cell lysates, mouse cerebellum tissue, rat cerebellum tissue.

Subcellular location: Cell membrane, Cytoplasmic vesicle, Endoplasmic reticulum, Endosome, Golgi apparatus, Membrane, Secreted.

Database links: SwissProt: Q92673 Human | O88307 Mouse | P0DSP1 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:200-1:500

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

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

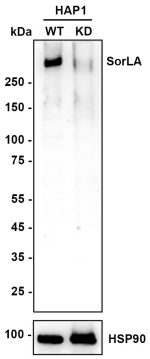

Fig1: Western blot analysis of SorLA on different lysates with Rabbit anti-SorLA antibody (HA721337) at 1/1,000 dilution.

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

Lysates/proteins at 10 µg/Lane.

Predicted band size: 248 kDa
Observed band size: 300 kDa

Exposure time: 120 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 (HA721337) 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.

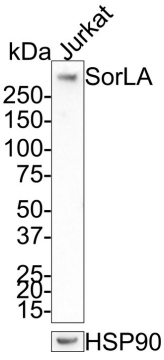

Fig2: Western blot analysis of SorLA on Jurkat cell lysates with Rabbit anti-SorLA antibody (HA721337) at 1/1,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 248 kDa
Observed band size: 300 kDa

Exposure time: 1 minute 30 seconds;

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 (HA721337) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

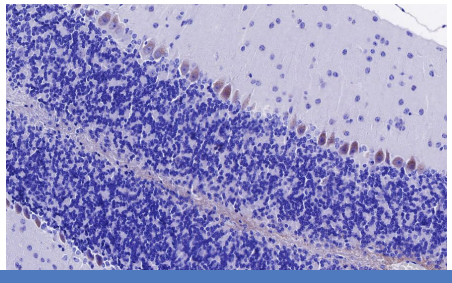

Fig3: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue with Rabbit anti-SorLA antibody (HA721337) at 1/1,000 dilution.

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

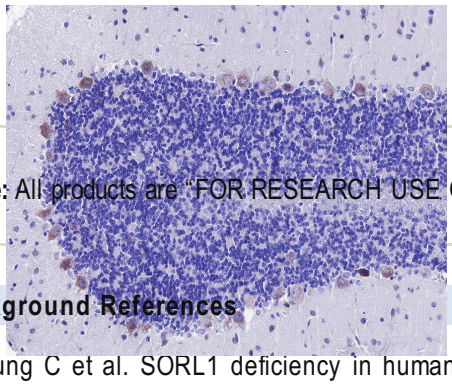

Fig4: Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-SorLA antibody (HA721337) at 1/1,000 dilution.

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 (HA721337) 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.

Background References

1. Hung C et al. SORL1 deficiency in human excitatory neurons causes APP-dependent defects in the endolysosome-autophagy network. Cell Rep. 2021 Jun
2. Mishra S et al. The Alzheimer's gene SORL1 is a regulator of endosomal traffic and recycling in human neurons. Cell Mol Life Sci. 2022 Feb