Anti-Pet1 Antibody [PSH07-77] - BSA and Azide free

HA751189

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size:
Clone number:	PSH07-77

Description: Functions as a transcriptional regulator. According to 1, it functions as a transcriptional repressor. Functions in the differentiation and the maintenance of the central serotonergic neurons. May play a role in cell growth. This gene belongs to the ETS transcription factor family. ETS family members have a highly conserved 85-amino acid ETS domain that binds purine-rich DNA sequences. The alanine-rich C-terminus of this gene indicates that it may act as a transcription repressor. This gene is exclusively expressed in neurons of the central serotonin (5-HT) system, a system implicated in the pathogeny of such psychiatric diseases as depression, anxiety, and eating disorders. In some types of Ewing tumors, this gene is fused to the Ewing sarcoma (EWS) gene following chromosome translocations.

Immunogen: Recombinant protein within human Pet1 aa 137-238.

Subcellular location: Nucleus.

Database links: SwissProt: Q99581 Human

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:50,000
IHC-P	1:10,000

Storage Buffer: 1*PBS (pH7.4).

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

Purity: Protein A affinity purified.

Images

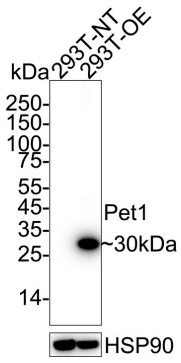

Fig1: Western blot analysis of Pet1 on different lysates with Rabbit anti-Pet1 antibody (HA751189) at 1/2,000 dilution.

Lane 1: 293T transfected with empty control cell lysate
Lane 2: 293T transfected with Pet1 cell lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 25 kDa
Observed band size: 30 kDa

Exposure time: 20 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 (HA751189) at 1/2,000 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.

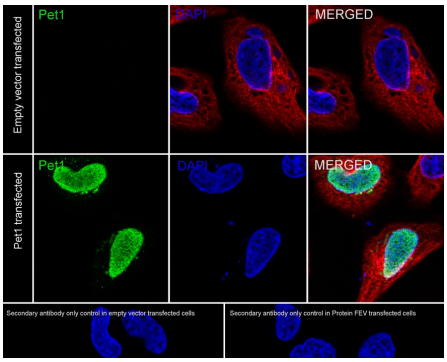

Fig2: Immunocytochemistry analysis of HeLa transfected with Pet1 cells labeling Pet1 with Rabbit anti-Pet1 antibody (HA751189) at 1/50,000 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Pet1 antibody (HA751189) at 1/50,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

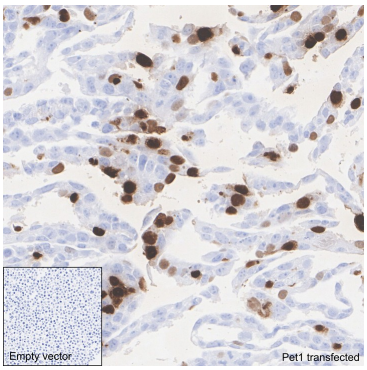

Fig3: Immunohistochemical analysis of paraffin-embedded HeLa transfected with Pet1 cells with Rabbit anti-Pet1 antibody (HA751189) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 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 (HA751189) at 1/10,000 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. Aydin B et al. Foxa2 and Pet1 Direct and Indirect Synergy Drive Serotonergic Neuronal Differentiation. Front Neurosci. 2022 Jun
2. Barettino C et al. Developmental Disruption of Erbb4 in Pet1+ Neurons Impairs Serotonergic Sub-System Connectivity and Memory Formation. Front Cell Dev Biol. 2021 Dec