

Anti-LIM Kinase 1 Antibody [PSH08-68]

HA723020



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Monkey
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 73 kDa
Clone number:	PSH08-68

Description: LIM domain kinase 1 is an enzyme that in humans is encoded by the LIMK1 gene. There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains they contain. LIM domains are highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination of 2 N-terminal LIM motifs, a central PDZ domain, and a C-terminal protein kinase domain. LIMK1 is likely to be a component of an intracellular signaling pathway and may be involved in brain development.

Immunogen: Recombinant protein within human aa 1-350.

Positive control: SH-SY5Y cell lysate, U-87 MG cell lysate, NIH/3T3 cell lysate, COS-1 cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, human testis tissue, mouse brain tissue, rat brain tissue, A431.

Subcellular location: Cytoplasm, Nucleus, cytoskeleton, Cell projection, lamellipodium.

Database links: SwissProt: P53667 Human | P53668 Mouse | P53669 Rat

Recommended Dilutions:

WB	1:4,000
IHC-P	1:200-1:1,000
FC	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

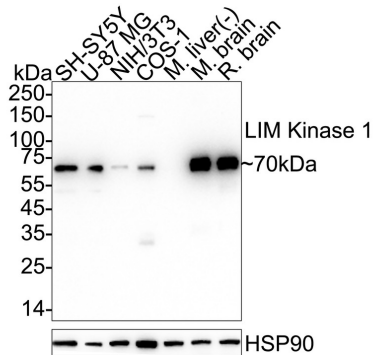
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Images

Fig1: Western blot analysis of LIM Kinase 1 on different lysates with Rabbit anti-LIM Kinase 1 antibody (HA723020) at 1/4,000 dilution.



Lane 1: SH-SY5Y cell lysate

Lane 2: U-87 MG cell lysate

Lane 3: NIH/3T3 cell lysate

Lane 4: COS-1 cell lysate

Lane 5: Mouse liver tissue lysate (negative)

Lane 6: Mouse brain tissue lysate

Lane 7: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 73 kDa

Observed band size: 70 kDa

Exposure time: 1 minute; 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 (HA723020) at 1/4,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

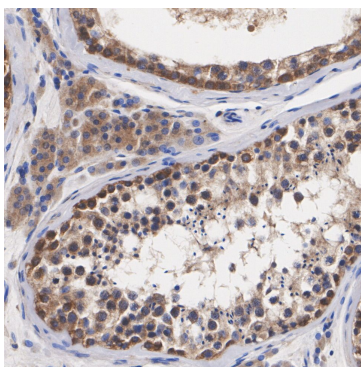


Fig2: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-LIM Kinase 1 antibody (HA723020) at 1/200 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA723020) at 1/200 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.

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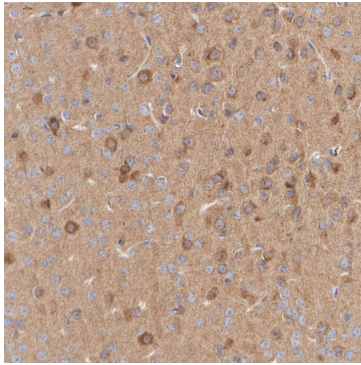


Fig3: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-LIM Kinase 1 antibody (HA723020) at 1/1,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA723020) 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.

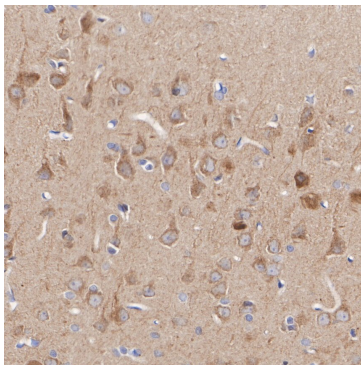


Fig4: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-LIM Kinase 1 antibody (HA723020) at 1/1,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA723020) 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.

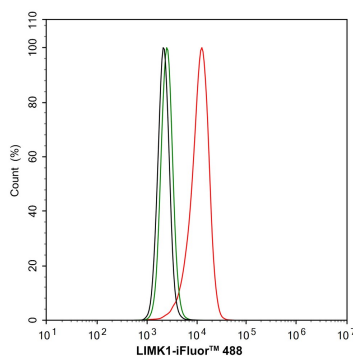


Fig5: Flow cytometric analysis of A431 cells labeling LIM Kinase 1.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA723020, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4 °C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4 °C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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

Background References

1. Chen J et al. Suppression of LIM Kinase 1 and LIM Kinase 2 Limits Glioblastoma Invasion. *Cancer Res.* 2020 Jan
2. Zhuravlev AV et al. LIM-kinase 1 effects on memory abilities and male courtship song in *Drosophila* depend on the neuronal type. *Vavilovskii Zhurnal Genet Selektcii.* 2023 Jun

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