Anti-Syndecan 4 Antibody [PSH0-72]

HA721473

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB
Molecular Wt:	Predicted band size: 22 kDa
Clone number:	PSH0-72

Description: Syndecan-4 is a transmembrane (type I) heparan sulfate proteoglycan that functions as a receptor in intracellular signaling. The protein is found as a homodimer and is a member of the syndecan proteoglycan family. Syndecan-4 interacts with extracellular matrix, anticoagulants, and growth-factors. It also regulates the actin cytoskeleton, cell adhesion, and cell migration. Syndecan-4 activates protein kinase C (PKC), an enzyme involved in signal transduction. The variable domain of syndecan-4 could be a site of self-association. The degree of oligomerization correlates with the activity of kinases, so the degree of clustering of syndecan-4 correlates to PKC activity. Syndecan-4 also binds to phosphatidylinositol (4,5)-bisphosphate (PIP2) through the variable domain and increases PKC activity ten-fold. Syndecan-4 is also a regulator of fibroblast growth factor-2 (FGF-2) signaling. Syndecan-4 binds to FGF and mediates interaction with the FGF receptor. Because the tight correlation between syndecan-4 and growth factors, the efficiency of angiogenic therapies have been thought to relate to syndecan-4. Growth factor signaling may be disrupted by changes in syndecan-4 expression. The cellular uptake, trafficking, and nuclear localization of FGF-2 could be increased by co-delivery of syndecan-4 proteoliposomes. These alterations should be considered in FGF-2-based therapies. Syndecan-4 is also associated with the healing process. Lack of Sdc4 gene causes delayed wound healing in mice. This delay may be due to compromised fibroblast motility.

Immunogen:	Recombinant protein within human Syndecan 4 Extracellular.
Positive control:	HepG2 cell lysate, Jurkat cell lysate, HeLa cell lysate, U-87 MG cell lysate, A549 cell lysate, MCF7 cell lysate, MDA-MB-231 cell lysate.
Subcellular location:	Membrane, Secreted.
Database links:	SwissProt: P31431 Human
Recommended Dilutions:	
WB	1:1,000
Storage Buffer:	PBS (pH7.4), 0.1% 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

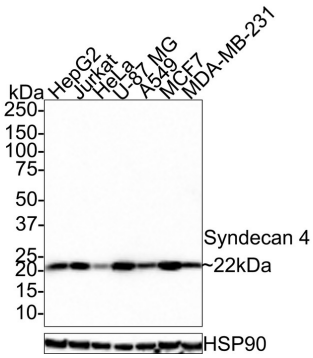

Fig1: Western blot analysis of Syndecan 4 on different lysates with Rabbit anti-Syndecan 4 antibody (HA721473) at 1/1,000 dilution.

Lane 1: HepG2 cell lysate
Lane 2: Jurkat cell lysate
Lane 3: HeLa cell lysate
Lane 4: U-87 MG cell lysate
Lane 5: A549 cell lysate
Lane 6: MCF7 cell lysate
Lane 7: MDA-MB-231 cell lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 22 kDa
Observed band size: 22 kDa

Exposure time: 45 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 (HA721473) 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 1:100,000 dilution was used for 1 hour at room temperature.

Background References

1. Onyeisi JOS et al. Syndecan-4 as a Pathogenesis Factor and Therapeutic Target in Cancer. Biomolecules. 2021 Mar
2. Keller-Pinter A et al. Syndecan-4 in Tumor Cell Motility. Cancers (Basel). 2021 Jul