Anti-DDR2 Antibody [JE31-45]

HA721479

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 97 kDa
Clone number:	JE31-45

Description: Discoidin domain-containing receptor 2, also known as CD167b (cluster of differentiation 167b), is a protein that in humans is encoded by the DDR2 gene. Discoidin domain-containing receptor 2 is a receptor tyrosine kinase (RTK). RTKs play a key role in the communication of cells with their microenvironment. These molecules are involved in the regulation of cell growth, differentiation, and metabolism. In several cases the biochemical mechanism by which RTKs transduce signals across the membrane has been shown to be ligand induced receptor oligomerization and subsequent intracellular phosphorylation. In the case of DDR2, the ligand is collagen which binds to its extracellular discoidin domain. This autophosphorylation leads to phosphorylation of cytosolic targets as well as association with other molecules, which are involved in pleiotropic effects of signal transduction. DDR2 has been associated with a number of diseases including fibrosis and cancer.

Immunogen: Synthetic peptide within Human DDR2 aa 806-855 / 855.

Positive control: HeLa cell lysate, SH-SY5Y cell lysate, L929 cell lysate, NIH/3T3 cell lysate, U-2 OS cell lysate, A375 cell lysate, PC-12 cell lysate, rat skeletal muscle tissue.

Subcellular location: Cell membrane.

Database links: SwissProt: Q16832 Human | Q62371 Mouse
Entrez Gene: 685781 Rat

Recommended Dilutions:

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

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

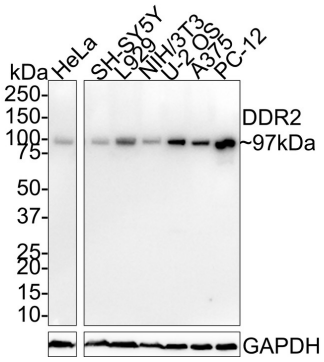

Fig1: Western blot analysis of DDR2 on different lysates with Rabbit anti-DDR2 antibody (HA721479) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (40 µg/Lane)
Lane 2: SH-SY5Y cell lysate (40 µg/Lane)
Lane 3: L929 cell lysate (40 µg/Lane)
Lane 4: NIH/3T3 cell lysate (40 µg/Lane)
Lane 5: U-2 OS cell lysate (15 µg/Lane)
Lane 6: A375 cell lysate (15 µg/Lane)
Lane 7: PC-12 cell lysate (10 µg/Lane)

Predicted band size: 97 kDa
Observed band size: 97 kDa

Exposure time: 2 minutes;

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 (HA721479) 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.

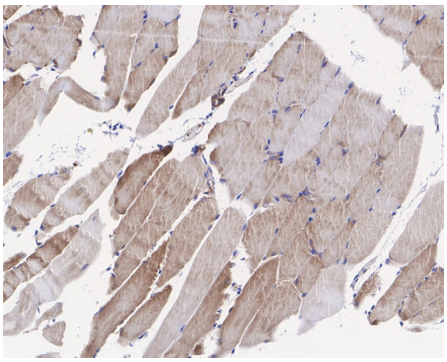

Fig2: Immunohistochemical analysis of paraffin-embedded rat skeletal muscle tissue with Rabbit anti-DDR2 antibody (HA721479) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA721479) 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.

Background References

1. Lin CC et al. DDR2 upregulation confers ferroptosis susceptibility of recurrent breast tumors through the Hippo pathway. Oncogene. 2021 Mar
2. Elkamhawy A et al. The Journey of DDR1 and DDR2 Kinase Inhibitors as Rising Stars in the Fight Against Cancer. Int J Mol Sci. 2021 Jun