Anti-JunD Antibody [SD0830]

ET1612-92

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IF-Tissue, IP, IHC-P, FC
Molecular Wt:	Predicted band size: 35 kDa
Clone number:	SD0830

Description: Transcription factor JunD is a protein that in humans is encoded by the JUND gene. The protein encoded by this intronless gene is a member of the JUN family, and a functional component of the AP1 transcription factor complex. It has been proposed to protect cells from p53-dependent senescence and apoptosis. Alternate translation initiation site usage results in the production of different isoforms. The dominant negative mutant variant of JunD, known as ΔJunD or Delta JunD, is a potent antagonist of the ΔFosB transcript, as well as other forms of AP-1-mediated transcriptional activity. In the nucleus accumbens, ΔJunD directly opposes many of the neurological changes that occur in addiction (i.e., those induced by ΔFosB). ΔFosB inhibitors (drugs that oppose its action) may be an effective treatment for addiction and addictive disorders. Being an unnatural genetic variant, deltaJunD has not been observed in humans. JunD has been shown to interact with ATF3, MEN1, DNA damage-inducible transcript 3 and BRCA1.

Immunogen: Recombinant protein within Human JunD aa 101-200 / 347.

Positive control: HeLa cell lysate, K-562 cell lysate, HeLa, human breast tissue, human breast cancer tissue.

Subcellular location: Nucleus.

Database links: SwissProt: P17535 Human

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Cell	1:100
IF-Tissue	1:50-1:200
IP	Use at an assay dependent concentration.
IHC-P	1:500
FC	1:1,000

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

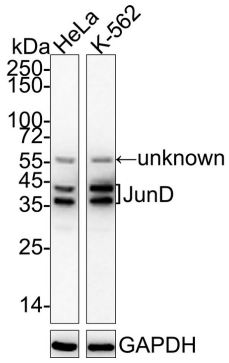

Fig1: Western blot analysis of JunD on different lysates with Rabbit anti-JunD antibody (ET1612-92) at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: K-562 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 35 kDa
Observed band size: 39/42 kDa

Exposure time: 1 minute;

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 (ET1612-92) 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.

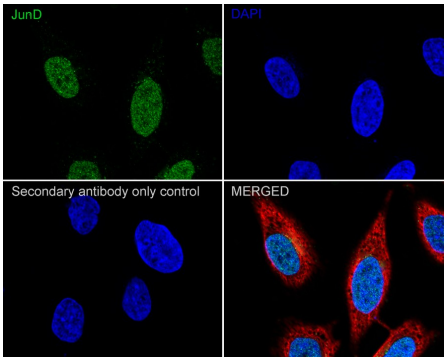

Fig2: Immunocytochemistry analysis of HeLa cells labeling JunD with Rabbit anti-JunD antibody (ET1612-92) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 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-JunD antibody (ET1612-92) at 1/100 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.

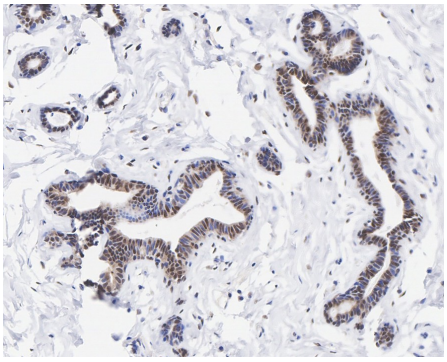

Fig3: Immunohistochemical analysis of paraffin-embedded human breast tissue with Rabbit anti-JunD antibody (ET1612-92) at 1/500 dilution.

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 (ET1612-92) at 1/500 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.

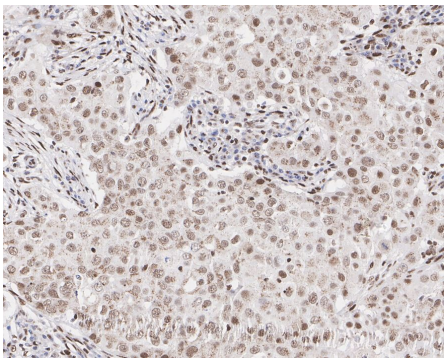

Fig4: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue with Rabbit anti-JunD antibody (ET1612-92) at 1/500 dilution.

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 (ET1612-92) at 1/500 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.

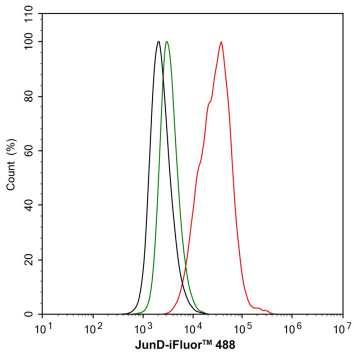

Fig5: Flow cytometric analysis of HeLa cells labeling JunD.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1612-92, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ 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℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Suwei D et al. NLK functions to maintain proliferation and stemness of NSCLC and is a target of metformin. J Hematol Oncol 8:120 (2015).
2. Chen H et al. S100A14: novel modulator of terminal differentiation in esophageal cancer. Mol Cancer Res 11:1542-53 (2013).

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation