

Anti-Cullin-3 Antibody

ER1706-70



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 89 kDa

Description: Cullin 3 is a protein that in humans is encoded by the CUL3 gene. Cullin 3 protein belongs to the family of cullins which in mammals contains eight proteins (Cullin 1, Cullin 2, Cullin 3, Cullin 4A, Cullin 4B, Cullin 5, Cullin 7 and Cullin 9). Cullin proteins are an evolutionarily conserved family of proteins throughout yeast, plants and mammals. Cullin 3 is a component of Cullin-RING E3 ubiquitin ligases complexes (CRLs) which are involved in protein ubiquitylation and represent a part of ubiquitin-proteasome system (UPS). Added ubiquitin moieties to the lysine residue by CRLs then target the protein for the proteasomal degradation. Cullin-RING E3 ubiquitin ligases are involved in many cellular processes responsible for cell cycle regulation, stress response, protein trafficking, signal transduction, DNA replication, transcription, protein quality control, circadian clock and development. Deletion of CUL3 gene in mice causes embryonic lethality.

Immunogen: Synthetic peptide within human Cullin-3 aa 724-768.

Positive control: SH-SY5Y, 293T, mouse testis tissue lysate, human kidney tissue, human placenta tissue.

Subcellular location: Golgi apparatus. Nucleus.

Database links: SwissProt: Q13618 Human | Q9JLV5 Mouse

Recommended Dilutions:

WB	1:500-1:2,000
IHC-P	1:50-1:500
FC	1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% 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: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

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

Images

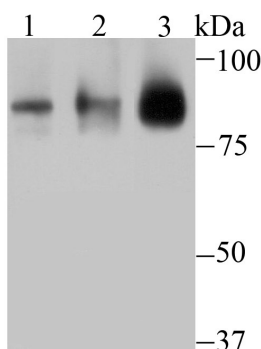


Fig1: Western blot analysis of Cullin 3 on different lysates using anti-Cullin 3 antibody at 1/1,000 dilution.

Positive control:

Lane 1: SH-SY5Y

Lane 2: 293T

Lane 3: Mouse testis tissue

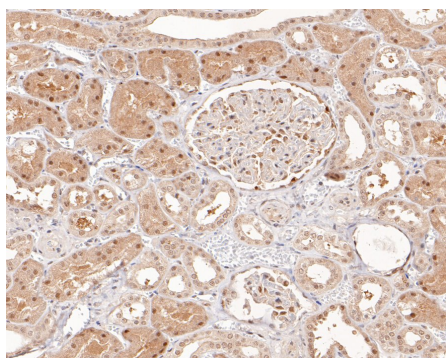


Fig2: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-Cullin-3 antibody (ER1706-70) at 1/500 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (ER1706-70) 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.

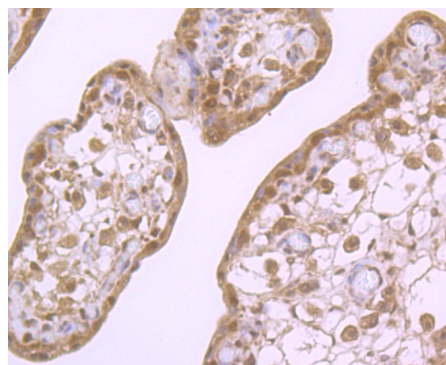


Fig3: Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-Cullin-3 antibody. Counter stained with hematoxylin.

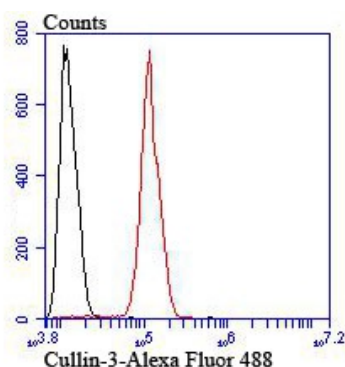


Fig4: Flow cytometric analysis of SH-SY5Y cells with Cullin 3 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

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Fig5: Western blot analysis of Cullin-3 on mouse testis tissue lysates with Rabbit anti-Cullin-3 antibody (ER1706-70) at 1/2,000 dilution.

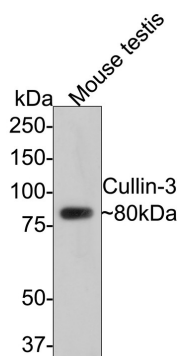
Lysates/proteins at 20 µg/Lane.

Predicted band size: 89 kDa

Observed band size: 80 kDa

Exposure time: 2 minutes;

8% 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 (ER1706-70) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

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

Background References

1. Li X et al. CUL3 (cullin 3)-mediated ubiquitination and degradation of BECN1 (beclin 1) inhibit autophagy and promote tumor progression. Autophagy. 2021 Dec
2. Wu J et al. Cullin-3: Renal and Vascular Mechanisms Regulating Blood Pressure. Curr Hypertens Rep. 2020 Aug

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