Anti-Klotho Antibody [JM93-76]

ET1705-88

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 116 kDa
Clone number:	JM93-76

Description: May have weak glycosidase activity towards glucuronylated steroids. However, it lacks essential active site Glu residues at positions 239 and 872, suggesting it may be inactive as a glycosidase in vivo. May be involved in the regulation of calcium and phosphorus homeostasis by inhibiting the synthesis of active vitamin D. Essential factor for the specific interaction between FGF23 and FGFR1. The Klotho peptide generated by cleavage of the membrane-bound isoform may be an anti-aging circulating hormone which would extend life span by inhibiting insulin/IGF1 signaling.

Immunogen: Synthetic peptide within Human Klotho aa 404-453 / 1,012.

Positive control: Human kidney tissue lysates, Human serum lysate, human kidney tissue lysate, human kidney tissue, mouse kidney tissue.

Subcellular location: Cell membrane. Apical cell membrane. Secreted.

Database links: SwissProt: Q9UEF7 Human | O35082 Mouse

Recommended Dilutions:

WB	1:500-1:5,000
IHC-P	1:50-1:200

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

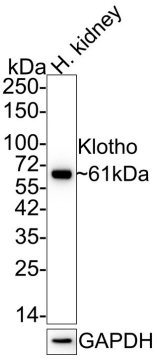

Fig1: Western blot analysis of Klotho on human kidney tissue lysates with Rabbit anti-Klotho antibody (ET1705-88) at 1/5,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 116 kDa
Observed band size: 61 kDa

Exposure time: 24 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 (ET1705-88) at 1/5,000 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.

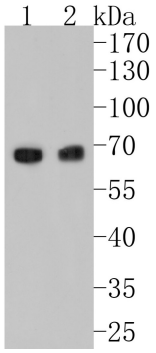

Fig2: Western blot analysis of Klotho on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1705-88, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Human serum lysate
Lane 2: Human kidney tissue lysate

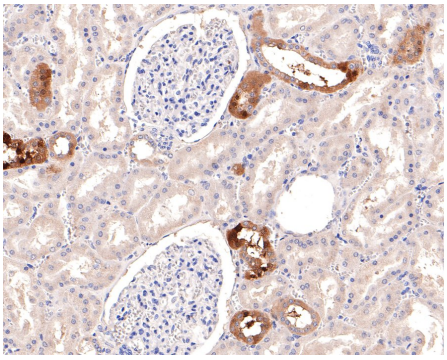

Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-Klotho antibody (ET1705-88) at 1/100 dilution.

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 (ET1705-88) at 1/100 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.

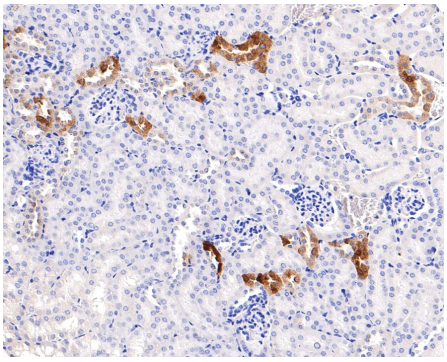

Fig4: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue with Rabbit anti-Klotho antibody (ET1705-88) at 1/100 dilution.

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 (ET1705-88) at 1/100 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. Mazzotta C et al. Proangiogenic effects of soluble a-Klotho on systemic sclerosis dermal microvascular endothelial cells. Arthritis Res Ther 19:27 (2017).
2. Sun J et al. Astragaloside IV protects new born rats from anesthesia-induced apoptosis in the developing brain. Exp Ther Med 12:1829-1835 (2016).