Anti-BMP15 Antibody [JE51-47]

ET7110-03

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 45 kDa
Clone number:	JE51-47

Description: Bone morphogenetic protein 15 is a protein that in humans is encoded by the BMP15 gene. It's mainly involved in folliculogenesis. The protein encoded by this gene is a member of the TGF-β superfamily. It is a paracrine signaling molecule involved in oocyte and follicular development. Using Northern blot analysis, BMP15 has been shown to be exclusively expressed in the ovaries. It is thought that this protein may be involved in oocyte maturation and follicular development as a homodimer or by forming heterodimers with a related protein, Gdf9. Promotion of growth and maturation of ovarian follicles, starting from the primary gonadotrophin-independent phases of folliculogenesis. Regulation of the sensitivity of granulosa cells to follicle-stimulating hormone (FSH) action, contributing to the determination of the number of eggs that are ovulated. Prevention of granulosa cell apoptosis. Promotion of developmental competence of oocytes. Defects in BMP15 are associated with primary ovarian insufficiency. BMP15may represent a biomarker of ovarian response to ovarian stimulation or oocyte quality.

Immunogen: Recombinant protein within Human BMP15 aa 270-392 / 392.

Positive control: HeLa cell lysate, SK-OV-3 cell lysate, Mouse testis tissue lysate, Rat testis tissue lysate, human thyroid cancer tissue, mouse testis tissue, mouse ovary tissue.

Subcellular location: Secreted.

Database links: SwissProt: O95972 Human | Q9Z0L4 Mouse
Entrez Gene: 59302 Rat

Recommended Dilutions:

WB	1:500-1:2,000
IHC-P	1:200-1:1,000

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℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

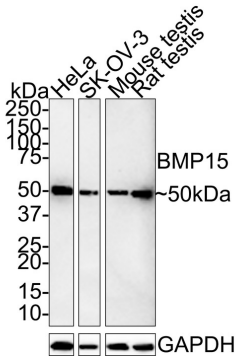

Fig1: Western blot analysis of BMP15 on different lysates with Rabbit anti-BMP15 antibody (ET7110-03) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: SK-OV-3 cell lysate (20 µg/Lane)
Lane 3: Mouse testis tissue lysate (20 µg/Lane)
Lane 4: Rat testis tissue lysate (20 µg/Lane)

Predicted band size: 45 kDa
Observed band size: 50 kDa

Exposure time: 5 minutes 30 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 (ET7110-03) 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.

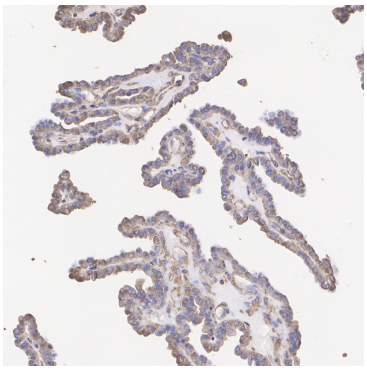

Fig2: Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue with Rabbit anti-BMP15 antibody (ET7110-03) at 1/1,000 dilution.

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 (ET7110-03) at 1/1,000 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.

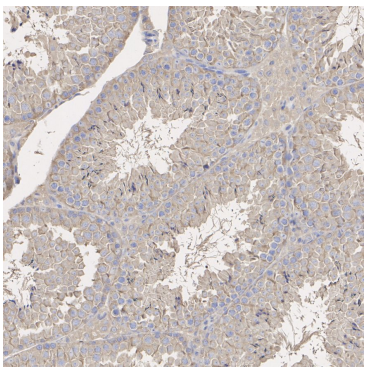

Fig3: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-BMP15 antibody (ET7110-03) at 1/200 dilution.

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 (ET7110-03) 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.

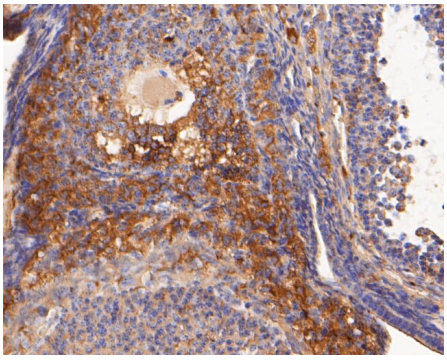

Fig4: Immunohistochemical analysis of paraffin-embedded mouse ovary tissue using anti-BMP15 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET7110-03, 1/200) for 30 minutes 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. Riepsamen AH. et. al. Serum concentrations of oocyte-secreted factors BMP15 and GDF9 during IVF and in women with reproductive pathologies. Endocrinology. 2019 Jun 18. pii: en.2019-00264.
2. Shimizu K. et. al. Molecular mechanism of FSHR expression induced by BMP15 in human granulosa cells. J Assist Reprod Genet. 2019 May 11.