Anti-ADAM17 Antibody [JM10-35]

ET1703-06

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IF-Tissue, FC, IP, IHC-Fr, IHC-P
Molecular Wt:	Predicted band size: 93 kDa
Clone number:	JM10-35

Description: A disintegrin and metalloprotease 17 (ADAM17), also called TACE (tumor necrosis factor-α-converting enzyme), is an 824-amino acid polypeptide that belongs to the ADAM protein family of disintegrins and metalloproteases. ADAM17 is understood to be involved in the processing of tumor necrosis factor alpha (TNF-α) at the surface of the cell, and from within the intracellular membranes of the trans-Golgi network. This process, which is also known as 'shedding', involves the cleavage and release of a soluble ectodomain from membrane-bound pro-proteins (such as pro-TNF-α), and is of known physiological importance. ADAM17 was the first 'sheddase' to be identified, and is also understood to play a role in the release of a diverse variety of membrane-anchored cytokines, cell adhesion molecules, receptors, ligands, and enzymes.

Immunogen: Synthetic peptide within Human ADAM17 aa 757-790 / 824.

Positive control: SW480 cell lysate, HepG2 cell lysate, HepG2, SKOV-3, SW480, Hela, mouse cerebral cortex tissue, mouse hippocampus tissue, rat hippocampus tissue.

Subcellular location: Membrane.

Database links: SwissProt: P78536 Human | Q9Z0F8 Mouse | Q9Z1K9 Rat

Recommended Dilutions:

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

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

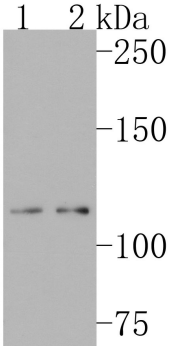

Fig1: Western blot analysis of ADAM17 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1703-06, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: SW480 cell lysate
Lane 2: HepG2 cell lysate

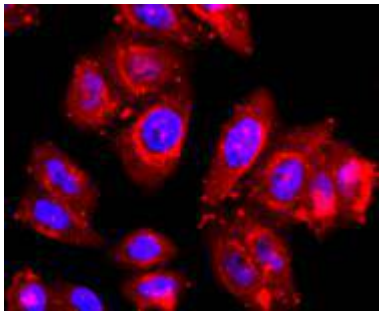

Fig2: ICC staining of ADAM17 in HepG2 cells (red). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1703-06, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®594 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

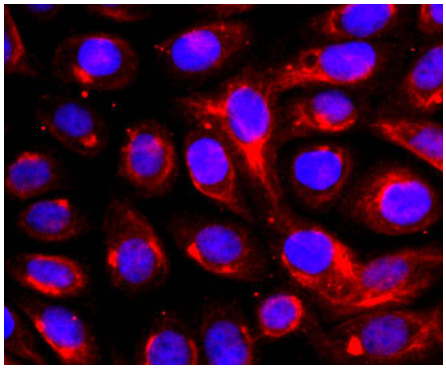

Fig3: ICC staining of ADAM17 in SKOV-3 cells (red). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1703-06, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®594 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

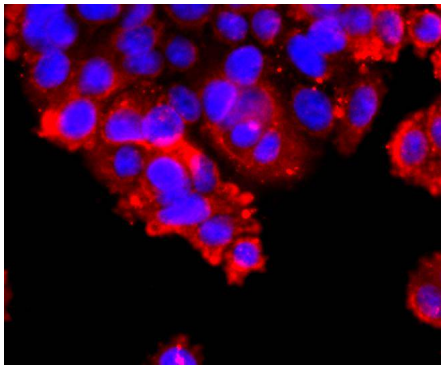

Fig4: ICC staining of ADAM17 in SW480 cells (red). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1703-06, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®594 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

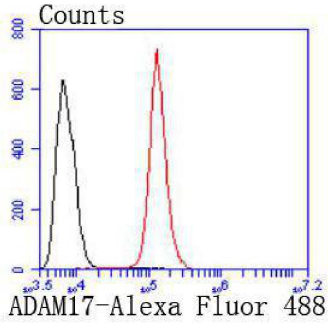

Fig5: Flow cytometric analysis of ADAM17 was done on Hela cells. The cells were fixed, permeabilized and stained with the primary antibody (ET1703-06, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

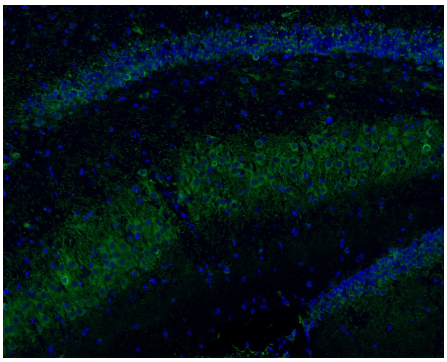

Fig6: Immunofluorescence analysis of frozen mouse hippocampus tissue labeling ADAM17 with Rabbit anti-ADAM17 antibody (ET1703-06).

The tissues were blocked in 3% BSA for 30 minutes at room temperature, washed with PBS, and then probed with the primary antibody (ET1703-06, green) at 1/100 dilution overnight at 4℃, washed with PBS. Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) was used as the secondary antibody at 1/200 dilution. Nuclei were counterstained with DAPI (blue). Image acquisition was performed with KFBIO KF-FL-400 Scanner.

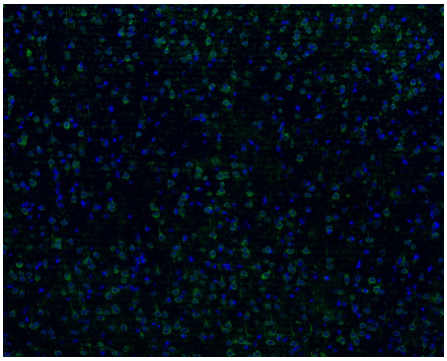

Fig7: Immunofluorescence analysis of frozen mouse cerebral cortex tissue labeling ADAM17 with Rabbit anti-ADAM17 antibody (ET1703-06).

The tissues were blocked in 3% BSA for 30 minutes at room temperature, washed with PBS, and then probed with the primary antibody (ET1703-06, green) at 1/100 dilution overnight at 4℃, washed with PBS. Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) was used as the secondary antibody at 1/200 dilution. Nuclei were counterstained with DAPI (blue). Image acquisition was performed with KFBIO KF-FL-400 Scanner.

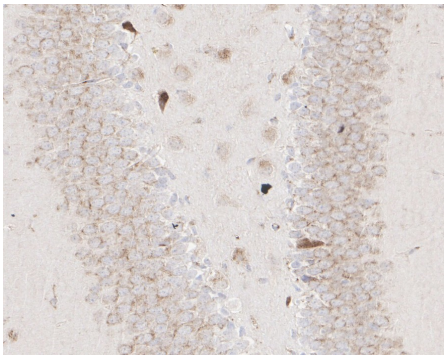

Fig8: Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue with Rabbit anti-ADAM17 antibody (ET1703-06) at 1/500 dilution.

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 (ET1703-06) 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.

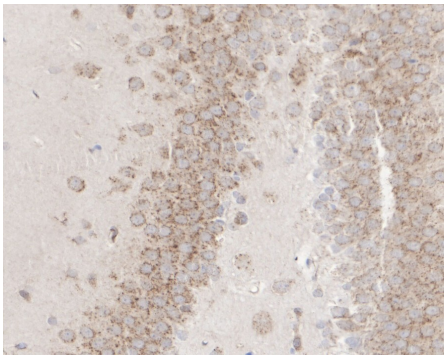

Fig9: Immunohistochemical analysis of paraffin-embedded rat hippocampus tissue with Rabbit anti-ADAM17 antibody (ET1703-06) at 1/500 dilution.

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 (ET1703-06) 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.

Background References

1. Corbett GT et al. Activation of peroxisome proliferator-activated receptor a stimulates ADAM10-mediated proteolysis of APP. Proc Natl Acad Sci U S A 112:8445-50 (2015).
2. McClurg UL et al. Epithelial cell ADAM17 activation by Helicobacter pylori: role of ADAM17 C-terminus and Threonine-735 phosphorylation. Microbes Infect 17:205-14 (2015).