

Anti-TMEM107 Picoband Antibody

Catalog # ABO10315

Product Information

Application	WB, IHC-P
Primary Accession	Q6UX40
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Transmembrane protein 107(TMEM107) detection. Tested with WB, IHC-P in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	84314
Other Names	Transmembrane protein 107, TMEM107
Calculated MW	15503
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Membrane ; Multi-pass membrane protein .
Source	Eukaryota
Protein Name	Transmembrane protein 107
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human TMEM107 (22-57aa VITLFWSRDSNIQACLPLTFTPEEYDKQDIQLVAAL), different from the related mouse and rat sequences by four amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	TMEM107 (HGNC:28128)
Function	Plays a role in cilia formation and embryonic patterning. Requires for normal Sonic hedgehog (Shh) signaling in the neural tube and acts in combination with GLI2 and GLI3 to pattern ventral and intermediate neuronal cell types (By similarity). During ciliogenesis regulates the ciliary transition zone localization of some MKS complex proteins (PubMed: 26518474).
Cellular Location	Membrane; Multi-pass membrane protein. Cell projection, cilium. Note=Localizes at the transition zone, a region between the basal body and the ciliary axoneme

Background

Cilia are dynamic signaling organelles essential for developmental patterning, including left-right specification, skeletal formation, neural development, and organogenesis. TMEM107 is predicted to be critical for cilia formation and signaling in a subset of embryonic tissues. Based on an alignment of the TMEM107 sequence with the genomic sequence (GRCh38), the TMEM107 gene was mapped to chromosome 17p13.1.

Images

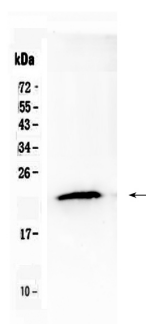


Figure 1. Western blot analysis of TMEM107 using anti-TMEM107 antibody (ABO10315). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: MCF-7 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- TMEM107 antigen affinity purified polyclonal antibody (Catalog # ABO10315) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for TMEM107 at approximately 22KD. The expected band size for TMEM107 is at 16KD.

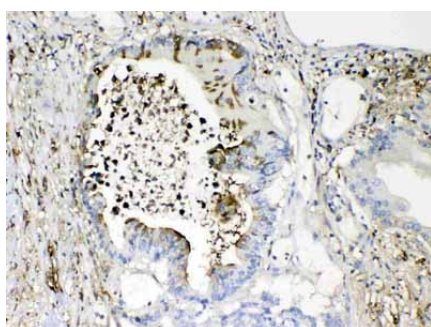


Figure 2. IHC analysis of TMEM107 using anti- TMEM107 antibody (ABO10315).TMEM107 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- TMEM107 Antibody (ABO10315) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30

minutes at 37 °C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

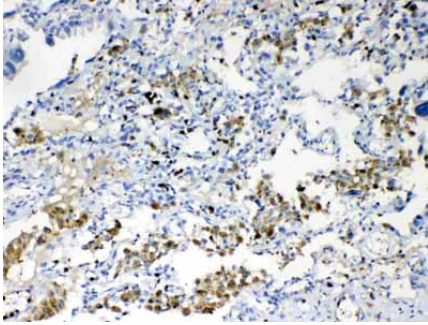


Figure 3. IHC analysis of TMEM107 using anti- TMEM107 antibody (ABO10315). TMEM107 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml rabbit anti- TMEM107 Antibody (ABO10315) overnight at 4 °C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 °C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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