10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# TMEM106B Rabbit pAb

TMEM106B Rabbit pAb
Catalog # AP52330

## Product Information

| | |
|---|---|
| **Application** | WB |
| **Primary Accession** | Q9NUM4 |
| **Reactivity** | Human |
| **Predicted** | Rat, Pig, Dog, Mouse, Rabbit, Horse, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 31127 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human TMEM106B |
| **Epitope Specificity** | 101-200/274 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Late endosome membrane; Single-pass type II membrane protein. Lysosome membrane; Single-pass type II membrane protein. |
| **DISEASE** | Note=TMEM106B genotype, when containing 3 particular single-nucleotide polymorphisms, is strongly correlated with frontotemporal lobar degeneration with TAR DNA-binding protein (TDP-43) inclusions (FTLD-TDP). Frontotemporal lobar degeneration (FTLD) is the second most common cause of presenile dementia and 20% of patients with this neurodegenerative disease have autosomal dominant GRN mutations. Expression of TMEM106B associated with these polymorphisms is increased in frontal cortex of patients with FTLD-TDP compared to unaffected controls. Thus, increased TMEM106B expression in the brain may be linked to mechanisms of disease in FTLD-TDP and risk alleles confer genetic susceptibility by increasing gene expression. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | TMEM106B is a 274 amino acid single-pass membrane protein that is encoded by a gene which maps to human chromosome 7. Chromosome 7 houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders, including cases of acute myelogenous leukemia and myelodysplasia. |

## Additional Information

| | |
|---|---|
| **Gene ID** | 54664 |
| **Other Names** | Transmembrane protein 106B, TMEM106B (HGNC:22407) |
| **Dilution** | WB=1:500-2000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

| | |
|---|---|
| **Name** | TMEM106B ( HGNC:22407) |
| **Function** | In neurons, involved in the transport of late endosomes/lysosomes (PubMed:25066864). May be involved in dendrite morphogenesis and maintenance by regulating lysosomal trafficking (PubMed:25066864). May act as a molecular brake for retrograde transport of late endosomes/lysosomes, possibly via its interaction with MAP6 (By similarity). In motoneurons, may mediate the axonal transport of lysosomes and axonal sorting at the initial segment (By similarity). It remains unclear whether TMEM106B affects the transport of moving lysosomes in the anterograde or retrograde direction in neurites and whether it is important in the sorting of lysosomes in axons or in dendrites (By similarity). In neurons, may also play a role in the regulation of lysosomal size and responsiveness to stress (PubMed:25066864). Required for proper lysosomal acidification (By similarity). |
| **Cellular Location** | Late endosome membrane; Single-pass type II membrane protein. Lysosome membrane; Single-pass type II membrane protein. Cell membrane; Single-pass type II membrane protein. Note=Colocalizes with LAMP1. A small fraction resides on the cell surface (PubMed:37421949). |
| **Tissue Location** | Expressed in the brain, including in the frontal cortex (at protein level) (PubMed:35247328, PubMed:35344985). Expressed in lung epithelial cells (PubMed:33686287) |

## Background

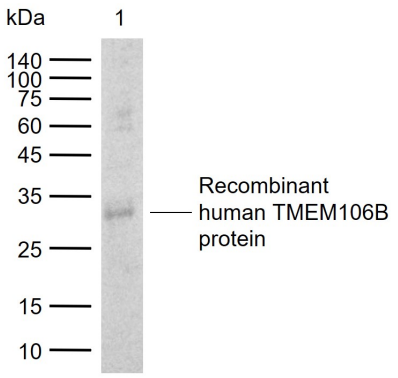
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

## References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Suzuki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Scherer S.W.,et al.Science 300:767-772(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 424:157-164(2003).

## Images

Sample:
Lane 1: Recombinant human TMEM106B protein,




N-Trx-His(AP52330)
Primary: Anti-TMEM106B (AP52330) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 31 kDa
Observed band size: 32 kDa