

# TMEM126A (S-13): sc-135531

## BACKGROUND

TMEM126A (transmembrane protein 126A) is a 195 amino acid multi-pass membrane protein that is encoded by a gene which maps to human chromosome 11 and may be involved in the pathogenesis of autosomal-recessive nonsyndromic optic atrophy. With approximately 135 million base pairs and 1,400 genes, chromosome 11 comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded ATM gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. ATM mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and thalassemia are caused by HBB gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11-encoded genes.

## REFERENCES

1. Yerushalmi, G.M., et al. 2002. Met-HGF/SF signal transduction induces mimp, a novel mitochondrial carrier homologue, which leads to mitochondrial depolarization. *Neoplasia* 4: 510-522.
2. Gross, A. 2005. Mitochondrial carrier homolog 2: a clue to cracking the Bcl-2 family riddle? *J. Bioenerg. Biomembr.* 37: 113-119.
3. Grinberg, M., et al. 2005. Mitochondrial carrier homolog 2 is a target of tBID in cells signaled to die by tumor necrosis factor  $\alpha$ . *Mol. Cell. Biol.* 25: 4579-4590.
4. Schwarz, M., et al. 2007. Mitochondrial carriers and pores: key regulators of the mitochondrial apoptotic program? *Apoptosis* 12: 869-876.
5. Ataga, K.I., et al. 2007.  $\beta$ -thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. *Br. J. Haematol.* 139: 3-13.
6. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.

## CHROMOSOMAL LOCATION

Genetic locus: TMEM126A (human) mapping to 11q14.1; Tmem126a (mouse) mapping to 7 E1.

## SOURCE

TMEM126A (S-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TMEM126A of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-135531 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TMEM126A (S-13) is recommended for detection of TMEM126A of human and, to a lesser extent, mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TMEM family members.

TMEM126A (S-13) is also recommended for detection of TMEM126A in additional species, including equine.

Suitable for use as control antibody for TMEM126A siRNA (h): sc-96524, TMEM126A shRNA Plasmid (h): sc-96524-SH and TMEM126A shRNA (h) Lentiviral Particles: sc-96524-V.

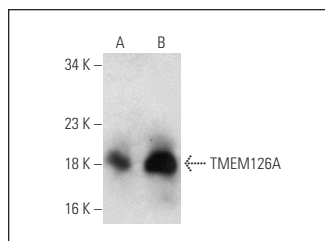
Molecular Weight (predicted) of TMEM126A: 22 kDa.

Molecular Weight (observed) of TMEM126A: 18 kDa.

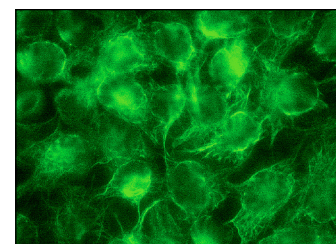
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TMEM126A (S-13): sc-135531. Western blot analysis of TMEM126A expression in mouse liver (A) and mouse pancreas (B) tissue extracts.



TMEM126A (S-13): sc-135531. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.