

For Research Use Only

# SMCR7L/MID51 Monoclonal antibody



Catalog Number: 67808-1-Ig

## Basic Information

<b>Catalog Number:</b> 67808-1-Ig	<b>GenBank Accession Number:</b> BC002587	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 1000 µg/ml	<b>GeneID (NCBI):</b> 54471	<b>CloneNo.:</b> 3B3G3
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q9NQG6	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:250-1:1000 IF 1:200-1:800
<b>Isotype:</b> IgG2b	<b>Full Name:</b> Smith-Magenis syndrome chromosome region, candidate 7-like	
<b>Immunogen Catalog Number:</b> AG13775	<b>Calculated MW:</b> 463 aa, 51 kDa	
	<b>Observed MW:</b> 48-51 kDa	

## Applications

### Tested Applications:

WB, IF-P, IHC, ELISA

### Species Specificity:

Human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: LNCaP cells, HeLa cells, HEK-293 cells, Jurkat cells, K-562 cells, PC-12 cells, NIH/3T3 cells, 4T1 cells, HSC-T6 cells

IHC: mouse testis tissue,

IF: mouse testis tissue,

## Background Information

Human SMCR7L gene encodes, MID51, the mitochondrial dynamic protein of 51 kDa (also called mitochondrial elongation factor 1, MIEF1). MID51 is a single-pass membrane protein anchored to the mitochondrial outer membrane and regulates mitochondrial morphology. Mitochondrial morphology is controlled by two opposing processes: fusion and fission. Elevated MID51 levels induce extensive mitochondrial fusion, whereas depletion of MID51 causes mitochondrial fragmentation. MID51 interacts with and recruits Drp1 to mitochondria, suggesting a critical role of MID51 in regulation of mitochondrial fusion-fission machinery in vertebrates.

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

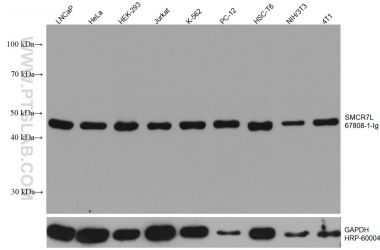
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

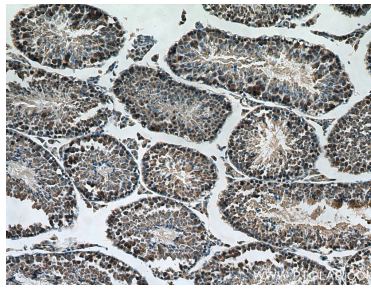
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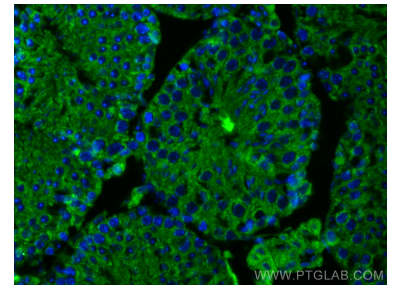
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 67808-1-Ig (SMCR7L/MID51 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 67808-1-Ig (SMCR7L/MID51 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse testis tissue using SMCR7L/MID51 antibody (67808-1-Ig, Clone: 3B3G3) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).