

SMCR7L/MID51 Monoclonal antibody

Catalog Number: 67808-1-Ig

Basic Information

Catalog Number:

67808-1-Ig

Size:

1000 µg/ml

Source:

Mouse

Isotype:

IgG2b

Immunogen Catalog Number:

AG13775

GenBank Accession Number:

BC002587

GeneID (NCBI):

54471

UNIPROT ID:

Q9NQG6

Full Name:

Smith-Magenis syndrome
chromosome region, candidate 7-like

Calculated MW:

463 aa, 51 kDa

Observed MW:

48-51 kDa

Purification Method:

Protein A purification

CloneNo.:

3B3G3

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:250-1:1000

IF-P 1:200-1:800

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-P: 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:

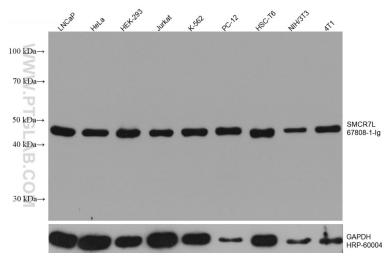
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

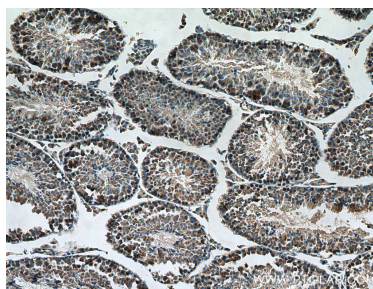
PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

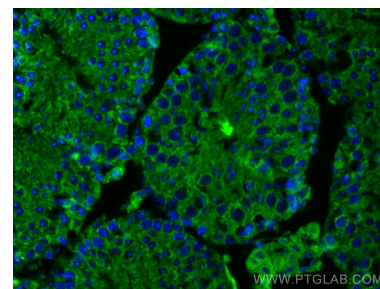
Selected Validation Data



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).