

For Research Use Only

SMCR7L/MID51 Monoclonal antibody

Catalog Number: 67808-1-Ig **1 Publications**



Basic Information

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

Applications

Tested Applications: WB, IHC, IF-P, ELISA	Positive Controls:
Cited Applications: WB	WB : LNCaP cells, HeLa cells, HEK-293 cells, Jurkat cells, K-562 cells, PC-12 cells, NIH/3T3 cells, 4T1 cells, HSC-T6 cells
Species Specificity: Human, mouse, rat	IHC : mouse testis tissue,
Cited Species: human	IF-P : mouse testis tissue,
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Harry J Brown	39975346	bioRxiv	WB

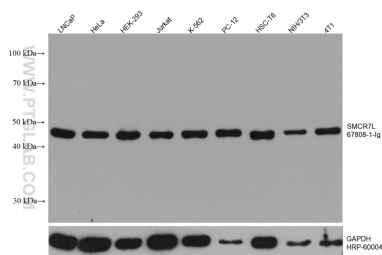
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

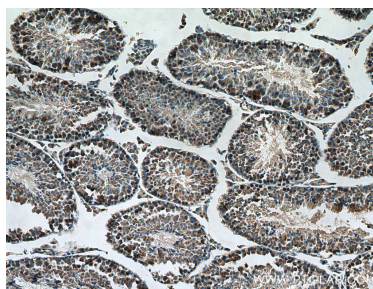
For technical support and original validation data for this product please contact:
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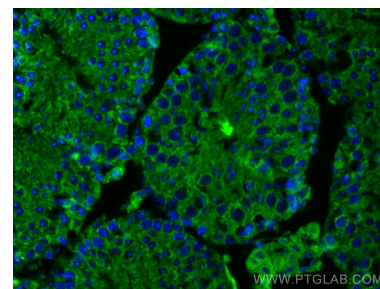
Selected Validation Data



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 Goat Anti-Mouse IgG(H+L).