

# SMCR7L/MID51 Polyclonal ANTIBODY

Catalog Number: 20164-1-AP

Featured Product

27 Publications

## Basic Information

**Catalog Number:**  
20164-1-AP

**Size:**  
280 µg/ml

**Source:**  
Rabbit

**Isotype:**  
IgG

**Purification Method:**  
Antigen affinity purification

**Immunogen Catalog Number:**  
AG13775

**GenBank Accession Number:**  
BC002587

**GeneID (NCBI):**  
54471

**Full Name:**  
Smith-Magenis syndrome chromosome region,  
candidate 7-like

**Calculated MW:**  
463aa, 51 kDa

**Observed MW:**  
48-51 kDa

**Recommended Dilutions:**

WB 1:500-1:2000

IP 0.5-4.0 µg for IP and 1:500-1:2000 for WB

IF 1:10-1:100

## Applications

**Tested Applications:**

IF, IP, WB, ELISA

**Cited Applications:**

IF, IP, WB

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, mouse, rat

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

**Positive Controls:**

**WB :** HT-1080 cells; mouse heart tissue, mouse testis tissue, NIH/3T3 cells, rat liver tissue, rat testis tissue

**IP :** RAW 264.7 cells;

**IF :** HeLa cells;

## Background Information

Human SMCR7L gene encodes, MD51, the mitochondrial dynamic protein of 51 kDa (also called mitochondrial elongation factor 1, MEF1). MD51 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 MD51 levels induce extensive mitochondrial fusion, whereas depletion of MD51 causes mitochondrial fragmentation. MD51 interacts with and recruits Drp1 to mitochondria, suggesting a critical role of MD51 in regulation of mitochondrial fusion-fission machinery in vertebrates.

## Notable Publications

Author	Pubmed ID	Journal	Application
Y Ruan	24176854	Cell Death Dis	WB
Zhenzhen Zhang	26432782	FASEB J	WB
Rajarshi Chakrabarti	29142021	J Cell Biol	WB

## Storage

**Storage:**

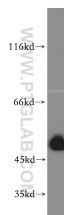
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

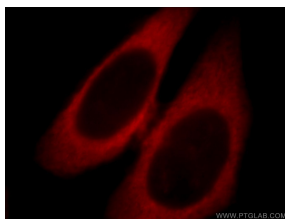
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

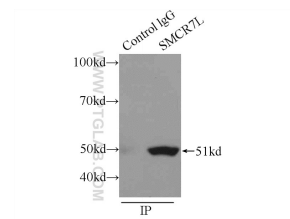
## Selected Validation Data



HT-1080 cells were subjected to SDS PAGE followed by western blot with 20164-1-AP(SMCR7L/MDS1 antibody) at dilution of 1:400 incubated at room temperature for 1.5 hours



Immunofluorescent analysis of HeLa cells, using SMCR7L antibody 20164-1-AP at 1:25 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



IP Result of anti-SMCR7L/MDS1 (IP:20164-1-AP; 3ug; Detection:20164-1-AP 1:1000) with RAW 264.7 cells lysate 2400ug.