anti-Human SLFN11 monoclonal antibody (recombinant)

Category	monoclonal antibody (recombinant)
Catalog No.	R-S-001 (clone 5-14.12)
Applications	WB, IF, IHC, IP, ELISA
Reactivity	Human

Immunogen information

Immunogen	Recombinant protein of human SLFN11 (2-356), *E. coli* derived.
UniProt ID	Q7Z7L1
Official full name	schlafen family member 11
Gene ID	91607

Product information

Source	Recombinant mouse monoclonal antibody
Expression system	CHO cells
Clone No.	5-14.12
Epitope	Human SLFN11 (201-220)
Isotype	$IgG1_k$ (mouse)
Purification method	Protein A purification
Lot No.	001
Concentration	1.0 mg/mL
Buffer	PBS, pH7.4, with 0.05% ProClin 300
Storage	Store at -20°C. Four or five freezes and thaws cycles are acceptable.

Recommended dilutions

WB	1:2000 – 1:5000
IF	1:200 – 1:500
IHC	1:100 – 1:200
IP	1:100 – 1:200
ELISA	1:500 – 1:1000

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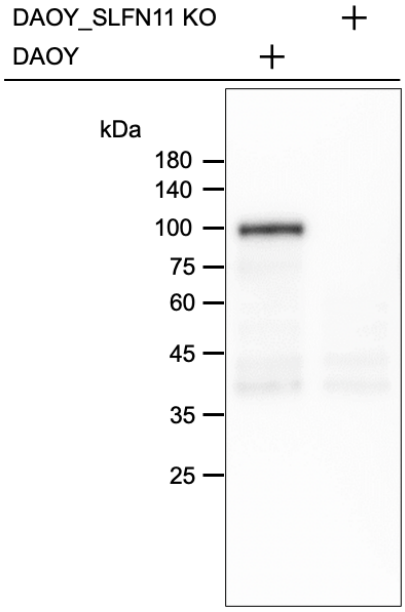
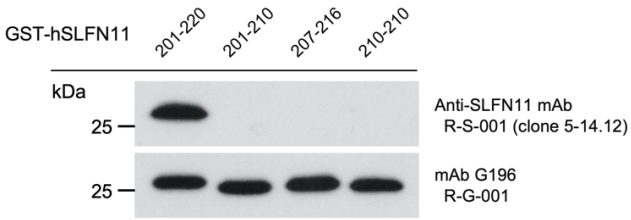
Western Blot



Western blot analysis of endogenous SLFN11 in DAOY human medulloblastoma cells and DAOY_SLFN11 knockout cells using anti-SLFN11 mAb (Catalog # R-S-001).

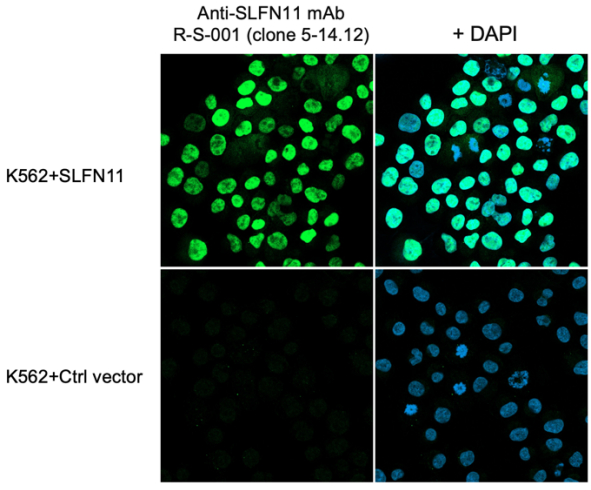
Epitope mapping



Epitope mapping of anti-SLFN11 mAb (Catalog # R-S-001).

The epitope mapping of anti-SLFN11 mAb was performed by subjecting bacterially expressed GST-tagged truncated mutants of human SLFN11 to Western blot analysis, which revealed amino acid residues 201–220 as the minimal epitope.
The GST fusion proteins contained the epitope DLVPR of mAb G196 (Catalog # R-S-001).

Immunofluorescence



Immunofluorescence of K562 cells w/wo transfecting human SLFN11.

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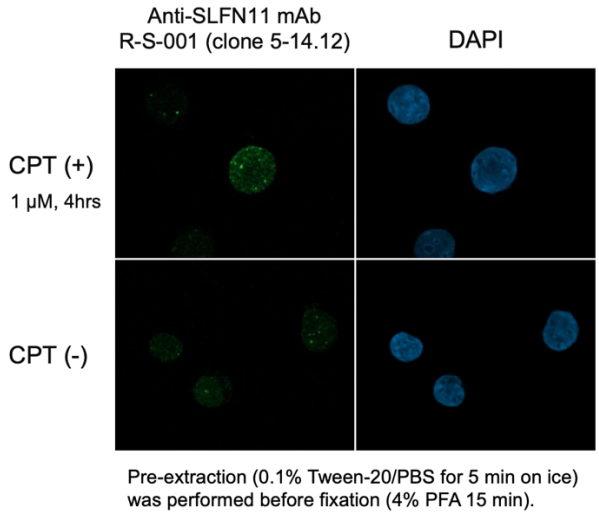
Immunofluorescence



Pre-extraction (0.1% Tween-20/PBS for 5 min on ice)
was performed before fixation (4% PFA 15 min).

Immunofluorescence of SLFN11-expressing K562 cells w/wo camptothecin (CPT) treatment.

Background

Schlafen 11 (SLFN11) has attracted attention as a dominant determinant because its mRNA expression level is highly correlated with sensitivity to various DNA-damaging anticancer agents, such as topoisomerase I (TOP1) inhibitors (camptothecin, indenoisoquinolines), TOP2 inhibitors (etoposide, doxorubicin), ribonucleotides inhibitors (hydroxyurea), antimetabolites (gemcitabine, cytosine arabinoside) and platinum-derivatives (cisplatin, carboplatin).

A recent clinical study analyzing the effects of SLFN11 on PARP inhibitor olaparib sensitivity in patients with ovarian cancer showed that high SLFN11 expression is associated with improved clinical outcomes and that only patients with both *BRCA* mutations and high SLFN11 expression benefited significantly from olaparib treatment.

References for anti-Human SLFN11 monoclonal antibody (R-S-001)

PMID:	38961202	Journal:	Oncogene	
Application:	WB	IF (2023):	6.9	Q1
Title:	Schlafen 11 further sensitizes BRCA-deficient cells to PARP inhibitors through single-strand DNA gap accumulation behind replication forks.			

PMID:	38125019	Journal:	iScience	
Application:	WB	IF (2023):	4.6	Q1
Title:	The crucial role of single-stranded DNA binding in enhancing sensitivity to DNA-damaging agents for Schlafen 11 and Schlafen 13.			

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