Human RNF4 monoclonal antibody

Category	Monoclonal antibody
Catalog No.	R-R-001 (clone # 11-3.1)
Applications	WB, IF, IP
Reactivity	Human

Immunogen information

Immunogen	Recombinant GST-tagged human full-length RNF4
UniProt ID	P78317
Synonyms	RING finger protein 4, SNURF (Small nuclear ring finger protein)
Gene ID	6047

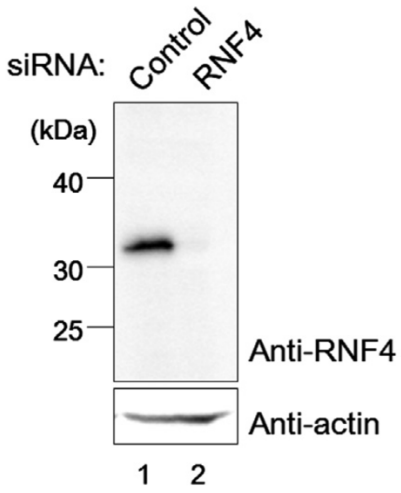
Product information

Source	Mouse
Clone No.	11-3.1
Isotype	IgG2b
Purification method	Protein A purification
Lot No.	001
Concentration	1.0 mg/mL
Buffer	50% glycerol/PBS, pH7.4, w/o sodium azide
Storage	Store at -20°C.

Recommended dilutions

WB	1:1000 – 1:2000
IF	1:50 – 1:200
IP	1:20 – 1:50

Western Blotting



Validation of this anti-RNF4 mAb using siRNA

Exponentially growing HeLa cells were transfected with control siRNA (lane 1) or siRNA against RNF4 (lane 2). After 24 h incubation, cells were lysed directly in SDS sample buffer, and proteins were subjected to 10% SDS–PAGE, followed by immunoblot analysis using mouse anti-RNF4 monoclonal antibody (Catalog #R-R-001, upper panel) or anti-actin (lower panel) antibody.

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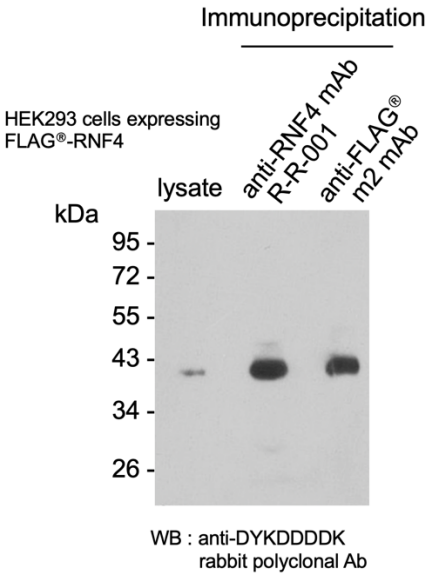
Immunoprecipitation

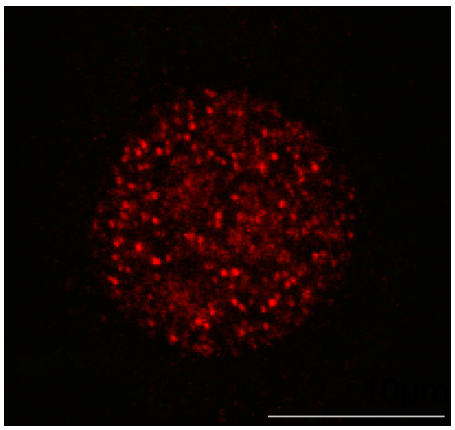


Immunoprecipitation of HEK293 cells transiently transfected with FLAG-RNF4

HEK293 cells were transfected with FLAG-tagged RNF4. RNF4 was immunoprecipitated using anti-RNF4 (Catalog #R-R-001) or anti-FLAG m2 monoclonal antibody. Western blot analysis was performed on the immunoprecipitated samples with anti-DYKDDDDK rabbit polyclonal antibody.

Anti-FLAG is a registered trademark of Sigma-Aldrich Biotechnology.

Immunofluorescence



Detection of endogenous RNF4 in a human cancer cell line by immunofluorescence

Endogenous RNF4 in a HeLa human cervical carcinoma cell was detected by immunofluorescence with mouse anti-human RNF4 monoclonal antibody (Catalog # R-R-001).

Background

A wide variety of proteins that contain a RING domain have been demonstrated to function as ubiquitin ligases that promote the transfer of ubiquitin from E2s to lysine residues in target proteins. Among the RING-type E3 ligases, RING finger protein 4 (RNF4 or SNURF) is proposed to ubiquitylated proteins modified by SUMO and therefore is classified into a particular category of E3s, termed as the SUMO-targeted ubiquitin ligases (STUbLs). In mammalian cells, RNF4 is crucial in arsenic therapy for acute promyelocytic leukemia and in responses against heat shock and hypoxia. RNF4 is also required for the DNA damage response and base-excision repair (BER)-mediated active DNA demethylation, suggesting that STUbL activity mediated by RNF4 is important for regulating a wide variety of signaling cascades in vital cellular systems.

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References for human RNF4 monoclonal antibody (R-R-001)

PMID:	27181354	Journal:	Biochem Biophys Res Commun.
Application:	IF	IF (2021):	3.322
Title:	Puromycin induces SUMO and ubiquitin redistribution upon proteasome inhibition.		

PMID:	24727457	Journal:	Biochem Biophys Res Commun.
Application:	WB, IF	IF (2021):	3.322
Title:	SUMO-modification and elimination of the active DNA demethylation enzyme TDG in cultured human cells.		

PMID:	24695317	Journal:	Biochem Biophys Res Commun.
Application:	WB	IF (2021):	3.322
Title:	The SUMO-targeted ubiquitin ligase RNF4 localizes to etoposide-exposed mitotic chromosomes: implication for a novel DNA damage response during mitosis.		

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