ARG57103
anti-SUMO2 + SUMO3 antibody [10F1]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [10F1] recognizes SUMO2 + SUMO3
Tested Reactivity	Hu
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	10F1
Isotype	IgG2b, kappa
Target Name	SUMO2 + SUMO3
Species	Human
Immunogen	Recombinant fragment around aa. 1-93 of Human SUMO2 / SUMO3.
Conjugation	Un-conjugated
Alternate Names	SMT3 homolog 2; HSMT3; SMT3B; SUMO-2; Small ubiquitin-related modifier 2; Sentrin-2; SUMO3; SUMO-3; SMT3H2; Ubiquitin-like protein SMT3B; Smt3B; Smt3A

Application Instructions

Application table

Application	Dilution
FACS	Assay-dependent
ICC/IF	Assay-dependent
IHC-P	Assay - dependent
WB	1:250 - 1:500

Application Note: IHC-P: Antigen Retrieval: Boil tissue section in 0.1M Sodium citrate buffer (pH 6.0) for 20 min.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

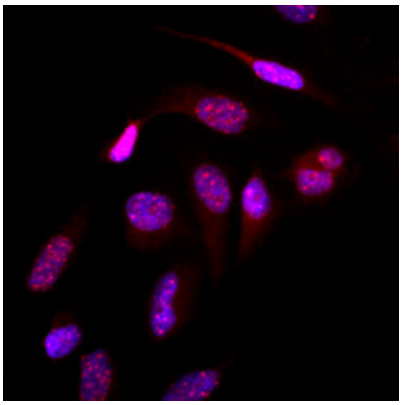
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.02% Sodium azide and 10% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	10% Glycerol
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 6613 Human Swiss-port # P61956 Human
Gene Symbol	SUMO2
Gene Full Name	small ubiquitin-like modifier 2
Background	This gene encodes a protein that is a member of the SUMO (small ubiquitin-like modifier) protein family. It functions in a manner similar to ubiquitin in that it is bound to target proteins as part of a post-translational modification system. However, unlike ubiquitin which targets proteins for degradation, this protein is involved in a variety of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. It is not active until the last two amino acids of the carboxy-terminus have been cleaved off. Numerous pseudogenes have been reported for this gene. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]
Function	Ubiquitin-like protein that can be covalently attached to proteins as a monomer or as a lysine-linked polymer. Covalent attachment via an isopeptide bond to its substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, and can be promoted by an E3 ligase such as PIAS1-4, RANBP2 or CBX4. This post-translational modification on lysine residues of proteins plays a crucial role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. Polymeric SUMO2 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins. Plays a role in the regulation of sumoylation status of SETX. [UniProt]
Calculated Mw	11 kDa
PTM	Polymeric chains can be formed through Lys-11 cross-linking. Polymeric SUMO2 chains undergo 'Lys-6'-, 'Lys-11'-, 'Lys-48'- and 'Lys-63'-linked polyubiquitination by RNF4. Cleavage of precursor form by SENP1 or SENP2 is necessary for function. Monoubiquitinated N-terminally by UBE2W, which primes it for RNF4-dependent polyubiquitination by the UBE2V1-UBE2N heterodimer.

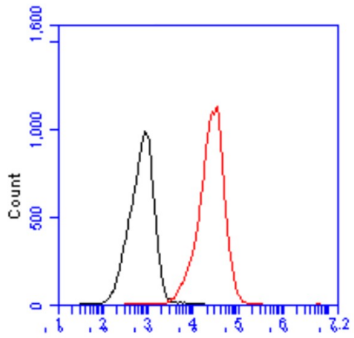
Images



ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] ICC/IF image

Immunofluorescence: HeLa cells stained with ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] at 1:500 (Red).

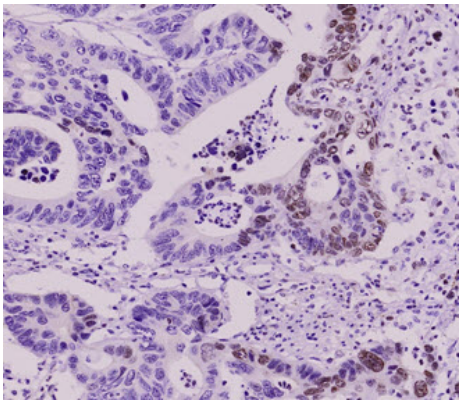
Hoechst 3342 (Blue) for nucleus staining.



Alexa 488-anti-SUMO-2 / SUMO-3 antibody

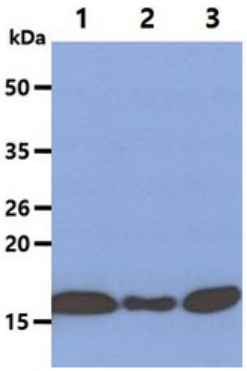
ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] FACS image

Flow Cytometry: Jurkat cell line stained with ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] at 2-5 µg for 1x10^6 cells (red line). Secondary antibody: Goat anti-Mouse IgG Alexa fluor 488 conjugate. Isotype control antibody: Mouse IgG (black line).



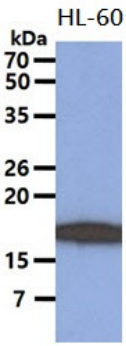
ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] IHC-P image

Immunohistochemistry: Paraffin-embedded sections of colorectal cancer tissue stained with ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] at 1:50 for 2 hours at RT. Antigen Retrieval: Boil tissue section in 0.1M Sodium citrate buffer (pH 6.0) for 20 min.



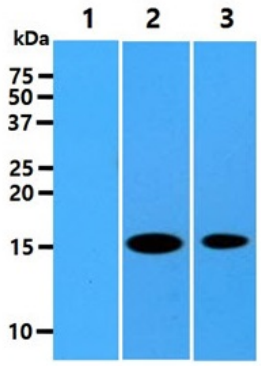
ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] WB image

Western blot: 40 µg of 1) HeLa, 2) Jurkat, and 3) K562 cell lysates stained with ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] at 1:1000.



ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] WB image

Western blot: 40 µg of HL-60 cell lysate stained with ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] at 1:1000.



ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] WB image

Western blot: 10 ng of 1) SUMO1, 2) SUMO2, and 3) SUMO3 recombinant proteins stained with ARG57103 anti-SUMO2 + SUMO3 antibody [10F1] at 1:1000.