

Human SUMO2/3 Antibody

Monoclonal Rat IgG_{2A} Clone # 852908

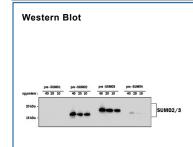
Catalog Number: A-718 An R&D Systems Company

DESCRIPTION		
Species Reactivity	Human	
Specificity	This antibody detects endogenous, human SUMOylated proteins in Western blots. This antibody has equivalent reactivity to SUMO2 and SUMO3 in Western blots with recombinant SUMO proteins. It has less than 5% cross-reactivity with recombinant SUMO4 and no cross-reactivity with recombinant SUMO1.	
Source	Monoclonal Rat IgG _{2A} Clone # 852908	
Purification	Protein A or G purified from hybridoma culture supernatant	
Immunogen	Purified, recombinant human SUMO3 Accession # P55854	
Formulation	0.5 mg/mL in PBS, pH 7.4, 50% glycerol, and 0.09% sodium azide. See Certificate of Analysis for details.	

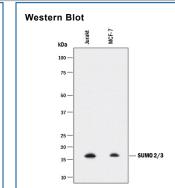
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.5-1 μg/mL	See Below



Detection of Human SUMO2/3 by Western Blot. Western blot shows lysates of SUMO2/3. PVDF membrane was probed with $0.5~\mu g/mL$ of Rat Anti-Human SUMO2/3 Monoclonal Antibody (Catalog # A-718) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for SUMO2/3 at approximately 16-20 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.



Detection of Human SUMO2/3 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line and MCF-7 human breast cancer cell line. PVDF membrane was probed with 1 µg/mL of Rat Anti-Human SUMO2/3 Monoclonal Antibody (Catalog # A-718) followed by HRPconjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for SUMO2/3 at approximately 16 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Store the unopened product at -20 °C. Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Storage below -20 °C is not recommended. Do not use past expiration date

BACKGROUND

Small Ubiquitinlike Modifiers (SUMOs) are a family of small, related proteins that can be enzymatically attached to a target protein by a posttranslational modification process termed SUMOylation. Unlike ubiquitination, which targets proteins for degradation, SUMOylation participates in a number of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. All human SUMO proteins share a conserved ubiquitin-like domain and a C-terminal diglycine cleavage/attachment site. Human SUMO1, SUMO2, SUMO3, and SUMO4 are all translated as propeptides, containing C-terminal prosegments following the diglycine motif that marks the end of the mature forms. Following prosegment cleavage, SUMO1, 2, and 3 may then be enzymatically attached to a lysine on a target protein. It is not clear whether SUMO4 is processed in a similar fashion.

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