

Quantitative Detection of DNA-Protein Crosslinks and Their Post-Translational Modifications

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Materials

Name	Company	Catalog Number	Comments
10x Phosphate buffered saline (PBS)	Thermo Fisher	70011069	
4–20% precast polyacrylamide gel	Bio-Rad	4561096	
4x Laemmli Sample Buffer	Bio-Rad	1610747	
AcquaStain (coomassie blue)	Bulldog Bio	AS001000	
anti-dsDNA (mouse monoclonal)	Abcam	27156	1: 5,000 dilution is recommended
anti-PAR (mouse monoclonal)	R&D systems	4335-MC-100	1: 500 dilution is recommended
anti-SUMO-1(rabbit monoclonal)	Cell Signaling Technology	4940	1: 250 dilution is recommended
anti-SUMO-2/3 (rabbit monoclonal)	Cell Signaling Technology	4971	1: 250 dilution is recommended
anti-TOP1 (mouse monoclonal)	BD Biosciences	556597	1: 500 dilution is recommended
anti-TOP2 α (mouse monoclonal)	Santa Cruz Biotechnology	SC-365799	1: 250 dilution is recommended
anti-TOP2 β (mouse monoclonal)	Santa Cruz Biotechnology	SC-25330	1: 250 dilution is recommended
anti-ubiquitin (mouse monoclonal)	Santa Cruz Biotechnology	SC-8017	1: 100 dilution is recommended
Calcium chloride	Sigma-Aldrich	499609	Used for micrococcal nuclease digestion
Camptothecin	Sigma-Aldrich	PHL89593	
ChemiDo MP imaging system	Bio-Rad	12003154	
Disodium phosphate	Sigma-Aldrich	5438380100	Used to make sodium phosphate buffer
DNAzol	Thermo Fisher	10503027	
DTT (dithiothreitol)	Thermo Fisher	R0861	
Dulbecco's modified eagle's medium	Sigma-Aldrich	11965084	
Ethyl alcohol, 200 proof	Sigma-Aldrich	E7023	
Etoposide	Sigma-Aldrich	1268808	
Formaldehyde	Sigma-Aldrich	47608	
Graphpad Prism Software	GraphStats	Prism 9.0.0	
HRP-linked Mouse IgG	Cytiva	NA931	1: 5,000 dilution is recommended
HRP-linked Rabbit IgG	Cytiva	NA934	1: 5,000 dilution is recommended
ImageJ Software	NIH, USA	ImageJ 1.53e	
L-Glutamine	Fisher Scientific	25030081	

Maximum sensitivity ECL substrate	Thermo Fisher	34095	
Micrococcal nuclease	New England BioLabs	M0247S	
Monosodium phosphate	Sigma-Aldrich	S3139	Used to make sodium phosphate buffer
NanoDrop 2000 spectrophotometer	Thermo Scientific	ND-2000	
N-ethylmaleimide	Thermo Fisher	23030	DeSUMOylation/deubiquitylation inhibitor
Nitrocellulose membrane, 0.45 µm	Bio-Rad	1620115	
Non-fat dry milk	Bio-Rad	1706404XTU	
PDD00017273	Selleckchem	S8862	Poly(ADP-ribose) glycohydrolase inhibitor
Penicillin-Streptomycin	Thermo Fisher	15140122	
Protease inhibitor cocktail	Thermo Fisher	78430	
Q700 sonicator	Qsonica	Q700-110	
Ready-to-assemble PVDF transfer kit	Bio-Rad	1704274	
Slot-blot apparatus	Bio-Rad	1706542	
Slot-blot filter paper	Bio-Rad	1620161	
Trans-Blot turbo transfer system	Bio-Rad	1704150	
Tris/Glycine/SDS electrophoresis buffer	Bio-Rad	1610732	
Tween-20	Sigma-Aldrich	P3179	
Vertical electrophoresis cell	Bio-Rad	1658004	