

Antibodies	References	Epitope or immunogen position	IF tests	WB tests
LEMD1	Sigma SAB3500644	aa 80-130 in isoform 1 (181 aa)	YES	YES
LEMD2_mid	Sigma HPA017340	aa 243-359 (this study)	YES	NO
LEMD2-C-ter	ab89866	aa 454-503	YES	YES (by abcam)
LEMD3	ab123973	Within human LEMD3	YES (by abcam)	YES (by abcam)
ANKLE2	Asencio et al.,2012	aa 59-938	YES	YES
Emerin	Leica-NCL-EMERIN	222 amino acid region near N-terminus	YES	Not recommended
Emerin	Sigma AMAb90560	63-DALLYQSKGYNDYY-77	YES	NO
LAP2□	sigma HPA008150	aa 129-187 (this study)	YES	YES
BAF	ab129184	aa 1-45	YES	YES (by abcam)
BAF-L	Sigma HPA042635	aa 12-252 of human BANF2	YES	YES
LBR	ab32535	aa 1-60*	YES	YES (by abcam)
GRP94	ab210960	aa 655-798	YES	YES (by abcam)
SPACA1	Sigma HPA026744	aa 93-153	YES (by Sigma)	YES (by Sigma)
Flag	Sigma F1804	DYKDDDDK	YES	YES
c-Myc	Sc-40	408-439 amino acids within C-domain of c-Myc	YES	YES
□Tubulin	ab15246	426-ALEKDYEEVGVDSVEGEGEEEGEEY-450	NO	YES
Secondary:GAR	Invitrogen A11008	Goat Anti Rabbit - Alexa Fluor@488	*YES	-
Secondary:GAM	Invitrogen A11001	Goat Anti Mouse - Alexa Fluor@488	*YES	-
Secondary:GAM	Invitrogen A21121	Goat Anti Mouse - Alexa Fluor@488	*YES	-
Secondary:GAM	Invitrogen A11003	Goat Anti Mouse - Alexa Fluor@546	*YES	-
Secondary:DAR	Invitrogen A31573	Donkey Anti Rabbit – Alexa fluor@647	*YES	-

**Table S2:** Antibodies used in immunofluorescence and western blot analyses. For primary antibodies, IF and Western tests refer to affinity tests by transfection into tissue culture cells (Figure S1). For secondary antibodies, this refers to the absence of IF signal when antibody is used without a primary antibody.