

Myositis-Specific Antibodies (MSA)

Test Name	Test No.	Methodology	Clinical Associations
Anti-Synthetase Profile (RDL) (Anti-Jo-1; PL-7; PL-12; EJ; OJ)	520193	RIPA Gel Radiography, ELISA	Anti-synthetase syndrome: myositis, non-erosive arthritis, ILD, Raynaud's phenomenon, unexplained fever, mechanic's hands. Anti-Jo-1 is the most common MSA, in about 30% of adult IIM, 1-3% of JM. Anti-PL-7, Anti-PL-12 in 3-4%. Anti-EJ, Anti-OJ <2%. ^{1,3}
Anti-SRP Ab (RDL)	520014	RIPA Gel Radiography	Closely associated with necrotizing myositis, acute onset, rapidly progressive, severe weakness, high CK, frequent cardiac and lung involvement, poor response or refractory to treatment. 5-13% of adult IIM (higher frequency in Asians and African Americans) and <2% of JM. ^{4,6}
Anti-Mi-2 Ab (RDL)	520000	RIPA Gel Radiography (detects autoantibodies to both alpha and beta Mi-2 subunits)	Associated with classic DM with mild to moderate weakness and hallmark cutaneous features (shawl rash, heliotrope rash, V-sign, Gottron's papules), good response to treatment and lower incidence of cancer compared to other DM. 9-24% of adult DM, 4-10% of JDM. ^{4,6}
Anti-TIF-1gamma Ab (RDL) (synonymous with Anti-P155/140)	520017	ELISA	Highly associated with malignancy which is found in 50-100% of positive adults. 89% specificity and 78% sensitivity for cancer-associated DM. No cancer association in children. 13-31% of adult DM, 22-29% of JDM. ^{4,6,7}
Anti-MDA-5-Ab (CADM-140) (RDL)	520002	ELISA	Associated with CADM, i.e. skin involvement and absent or mild muscle symptoms; rapidly progressive ILD: skin ulcerations and papules, oral ulcerations, arthritis. 10-48% Asian and 0-13% Caucasian adult DM, 7-38% of JDM. ^{4,6,7}
Anti-NXP-2 (P140) Ab (RDL)	520004	ELISA	In adult DM, associated with malignancy and ILD, significant muscle weakness, elevated CK. In JDM, associated with cutaneous calcinosis cutis. 1-17% of adult DM, 23-25% of JDM. ^{4,6}
Anti-SAE1 Ab, IgG (RDL)	520011	ELISA	Very specific for DM. Cutaneous DM ² with typical skin lesions at initial disease onset progressing to myositis. 6-8% of Caucasian, 2% Asian adult PM/DM. ^{2,4}