

Reporting Title: mSMART Algorithmic Testing, BM
Performing Location: Mayo Clinic Laboratories - Rochester Main Campus

Ordering Guidance:

This test should be ordered at diagnosis or for a known relapsing patient of multiple myeloma and when MPCDS / mSMART, Plasma Cell Proliferative Disorder, FISH, Bone Marrow is requested.

For follow-up of a plasma cell neoplasm (plasma cell proliferative disorder), order MSMRD / Myeloma Stratification and Risk-Adapted Therapy with Reflex to Minimal Residual Disease, Bone Marrow.

Necessary Information:

- 1. Include patient's disease state (untreated, treated, monoclonal gammopathy of undetermined significance, stable).
- 2. Indicate if patient is on anti-CD38 therapy.

Specimen Requirements:

Specimen Type: Redirected bone marrow
Preferred: Yellow top (ACD solution A or B)
Acceptable: Lavender top (EDTA) or green top (heparin)
Specimen Volume: 4 mL

Forms:

If not ordering electronically, complete, print, and send a [Hematopathology/Cytogenetics Test Request](#) (T726) with the specimen.

Specimen Type	Temperature	Time	Special Container
Bone Marrow	Ambient (preferred)	72 hours	
	Refrigerated	72 hours	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
CK056	Monotypic Plasma Cells:	Alphanumeric		93362-2
CK057	Monotypic PC per Total Events	Alphanumeric	%	93021-4
CK058	Monotypic Plasma Cells S-phase	Alphanumeric	%	93361-4
CK059	Monotypic Plasma Cells DNA Index	Alphanumeric		93360-6
CK060	Monotypic Plasma Cells DNA Ploidy	Alphanumeric		93359-8
CK061	Polytypic PC per Total Events	Alphanumeric	%	93358-0
CK062	Polytypic PC per All Plasma Cells	Alphanumeric	%	93020-6
CK134	Final Diagnosis	Alphanumeric		22637-3

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

- 88182-Flow cytometry, cell cycle or DNA analysis
- 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker
- 88185 x 5-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each)
- 88187-Flow cytometry interpretation, 2 to 8 Markers

Reflex Tests:

Test Id	Reporting Name	CPT Units	CPT Code	Always Performed	Available Separately
CSMRT	MPCDS Pre-Analysis Cell Sorting, BM	1	88184	No	No
MPCDB	Probe, Each Additional (MPCDS)	1	88271	No	No, (Bill Only)
MPCDS	mSMART Eval, PCPDs, FISH	1	88271	No	Yes, (Order PCPDS)

Result Codes for Reflex Tests:

Test ID	Result ID	Reporting Name	Type	Unit	LOINC®
CSMRT	607682	MPCDS Pre-Analysis Cell Sort	Alphanumeric		No LOINC Needed
CSMRT	607688	Final Diagnosis	Alphanumeric		No LOINC Needed
MPCDS	606091	mSMART Result Summary	Alphanumeric		62357-9
MPCDS	606092	mSMART Evaluation	Alphanumeric		57802-1
MPCDS	606093	Interpretation	Alphanumeric		69965-2
MPCDS	606094	Result Table	Alphanumeric		93356-4
MPCDS	606095	Result	Alphanumeric		62356-1
MPCDS	606096	Reason for Referral	Alphanumeric		42349-1
MPCDS	606097	Specimen	Alphanumeric		31208-2
MPCDS	606098	Source	Alphanumeric		85298-8
MPCDS	606099	Method	Alphanumeric		85069-3
MPCDS	606100	Additional Information	Alphanumeric		48767-8
MPCDS	606101	Disclaimer	Alphanumeric		62364-5
MPCDS	606102	Released By	Alphanumeric		18771-6

Reference Values:

- PLASMA CELL CLONALITY:
- Normal bone marrow
 - No monocytic clonal plasma cells detected

- DNA INDEX:
- Normal polytypic plasma cells
 - DNA index (G0/G1 cells): Diploid 0.95-1.05

Test Definition: MSMRT

Mayo Algorithmic Approach for Stratification
of Myeloma and Risk-Adapted Therapy Report,
Bone Marrow