

**REPORTING CHANGE**

**NOTIFICATION DATE:** June 23, 2009

**EFFECTIVE DATE:** July 30, 2009

**CALCIUM SENSING RECEPTOR (CASR) GENE MUTATION SCREENING,  
BIOCHEMICAL AND GENETIC  
#83817**

**EXPLANATION:** In order to improve test turnaround time, a member of profile #83817 will be changed. Currently, test #28379, Parathyroid Hormone (PTH), Serum, is performed as part of this profile; this test will be replaced with an equivalent test (#82999). Test #82999 will not be available as a stand alone test. For unilateral Parathyroid Hormone (PTH) testing, continue to order test #28379. No other changes to profile #83817 will be implemented at this time.

**CURRENT PROFILE INFORMATION:**

Unit Code	Reporting Name	Available Separately	Always Performed
83703	CASR Mutation Screen	Yes	Yes
23341	Calcium, U	No	Yes
23362	Creatinine, U	No	Yes
23372	Calcium/Creatinine Ratio, U	No	Yes
28379	Parathyroid Hormone (PTH), S	Yes	Yes
8432	Calcium, Total, S	Yes	Yes
8408	Phosphorus (Inorganic), S	Yes	Yes
28266	Creatinine, P/S	Yes (order #8472)	Yes

**NEW PROFILE INFORMATION:**

Unit Code	Reporting Name	Available Separately	Always Performed
83703	CASR Mutation Screen	Yes	Yes
23341	Calcium, U	No	Yes
23362	Creatinine, U	No	Yes
23372	Calcium/Creatinine Ratio, U	No	Yes
82999	Parathyroid Hormone (PTH), S	No	Yes
8432	Calcium, Total, S	Yes	Yes
8408	Phosphorus (Inorganic), S	Yes	Yes
28266	Creatinine, P/S	Yes (order #8472)	Yes

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager  
Richard R. Einerson, Mayo Medical Laboratories' Technical Support  
Telephone: 800-533-1710



# TEST DEFINITION

6/19/2009

MML NAME/ORDER CODE CROSS-REFERENCE  
 CODE NAME  
 -----  
 83817 CASR MUT. SCREEN, BIOCHEM & GENETIC

MML		MML TEST SETUP INFORMATION				PERFORM	
ORDER CODE	EFF DATE	TC	TITLE	CHECKING NORMALS	PRINT NORMALS (# CODED)	SITE *	
83817 (PROFILE)			CASR MUT. SCREEN, BIOCHEM & GENETIC				
83703	5/5/2005		CASR MUTATION SCREEN			MCR	
			UNIT CODE ALWAYS MESSAGE - [Z82999D]				
			PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.				
			TRANSPORT TEMP : AMBIENT\REFRIG OK\FROZEN NO				
			22870	SPECIMEN			
			-	-	-	-	
			22871	SPECIMEN ID			
			-	-	-	-	
			22872	SOURCE			
			-	-	-	-	
			22873	ORDER DATE			
			-	-	-	-	
			22874	REASON FOR REFERRAL			
			-	-	-	-	
			22875	METHOD			
			-	-	-	-	
			22876	RESULT			
			-	-	-	-	
			22877	INTERPRETATION			
			-	-	-	-	
			22878	AMENDMENT			
			-	-	-	-	
			22879	REVIEWED BY			
			-	-	-	-	
			22880	RELEASE DATE			
			-	-	-	-	

MML	MML TEST SETUP INFORMATION				P
ORDER	EFF				PERFORM
CODE	DATE	TC	TITLE	CHECKING NORMALS	PRINT NORMALS (# CODED) SITE *
83817 (CONTINUED)					
23341	6/26/2008		CALCIUM, U		SDL
			UNIT CODE ALWAYS MESSAGE - [Z82999D]		
			PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.		
			TRANSPORT TEMP : REFRIG\FROZEN OK\AMBIENT NO		
23362	8/5/2008		CREATININE, U		MCR
			UNIT CODE ALWAYS MESSAGE - [Z82999D]		
			PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.		
			TRANSPORT TEMP : REFRIG\FROZEN OK\AMBIENT NO		
23372	5/9/2005		CALCIUM/CREATININE RATIO, U		MCR
			UNIT CODE ALWAYS MESSAGE - [Z82999D]		
			PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.		
		22823	CALCIUM, U		
			UNITS: UMOL/L		
			- - - - -		
		22825	CREATININE, U		
			UNITS: UMOL/L		
			- - - - -		
		22826	CALCIUM/CREATININE RATIO		
			EXPECT RESULTS OF FORM : SHOULD BE 0 OR 1 DIGITS WITH 3 DECIMAL PLACES.		
			NO SEX		
			ALL AGES :	; #N22826	
			MALE		
			ALL AGES :	; #N22826	
			FEMALE		
			ALL AGES :	; #N22826	
			- - - - -		
82999	5/28/2009		PARATHYROID HORMONE (PTH), S		MCR
			UNIT CODE ALWAYS MESSAGE - [Z82999D]		
			PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.		
			TRANSPORT TEMP : FROZEN\REFRIG OK\AMBIENT NO		
82999			PARATHYROID HORMONE (PTH), S		
			UNITS: PG/ML		
			NO SEX		
			ALL AGES : 15-65	; 15-65	
			MALE		
			ALL AGES : 15-65	; 15-65	
			FEMALE		
			ALL AGES : 15-65	; 15-65	
			- - - - -		
8432	12/7/2007		CALCIUM, TOTAL, S		MCR
			UNIT CODE ALWAYS MESSAGE - [Z82999D]		
			PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.		
			TRANSPORT TEMP : FROZEN\REFRIG OK\AMBIENT NO		
8432			CALCIUM, TOTAL, S		
			EXPECT RESULTS OF FORM : SHOULD BE A NUMBER BT 0.0 AND 99.9, OR "<".		
			UNITS: MG/DL		

NO SEX  
 No AGE : ; #N8432C  
 1D TO 11M : ; NOT ESTABLISHED  
 12M TO 11Y : 9.6-10.6 ; 9.6-10.6

MML TEST SETUP INFORMATION

ORDER CODE	EFF DATE	TC	TITLE	CHECKING NORMALS	PRINT NORMALS (# CODED)	PERFORM SITE *
83817	(CONTINUED)					
		8432	CALCIUM, TOTAL, S (CONTINUED)			
			12Y TO 14Y	:	; #N8432C14	
			15Y TO 16Y	:	; #N8432C16	
			17Y TO 18Y	:	; #N8432C18	
			19Y TO 19Y	:	; #N8432C19	
			20Y TO 21Y	:	; #N8432C19	
			22Y TO 150Y	: 8.9-10.1	; 8.9-10.1	
			MALE			
			No AGE	:	; #N8432CM	
			1D TO 11M	:	; NOT ESTABLISHED	
			12M TO 14Y	: 9.6-10.6	; 9.6-10.6	
			15Y TO 16Y	: 9.5-10.5	; 9.5-10.5	
			17Y TO 18Y	: 9.5-10.4	; 9.5-10.4	
			19Y TO 21Y	: 9.3-10.3	; 9.3-10.3	
			22Y TO 150Y	: 8.9-10.1	; 8.9-10.1	
			FEMALE			
			No AGE	:	; #N8432CF	
			1D TO 11M	:	; NOT ESTABLISHED	
			12M TO 11Y	: 9.6-10.6	; 9.6-10.6	
			12Y TO 14Y	: 9.5-10.4	; 9.5-10.4	
			15Y TO 18Y	: 9.1-10.3	; 9.1-10.3	
			19Y TO 150Y	: 8.9-10.1	; 8.9-10.1	
		7596	CALCIUM, S			
			UNITS: MMOL/L			
			NO SEX			
			No AGE	:	; #N7596C0	
			1D TO 11M	:	; NOT ESTABLISHED	
			12M TO 11Y	:	; #N7596C11	
			12Y TO 14Y	:	; #N7596C14	
			15Y TO 18Y	:	; #N7596C18	
			19Y TO 21Y	:	; #N7596C21	
			22Y TO 150Y	: 2.2-2.5	; 2.2-2.5	
			MALE			
			No AGE	:	; NOT ESTABLISHED	
			1D TO 11M	:	; NOT ESTABLISHED	
			12M TO 14Y	: 2.4-2.7	; 2.4-2.7	
			15Y TO 18Y	: 2.4-2.6	; 2.4-2.6	
			19Y TO 21Y	: 2.3-2.5	; 2.3-2.5	
			22Y TO 150Y	: 2.2-2.5	; 2.2-2.5	
			FEMALE			

NO AGE :  
 1D TO 11M : ; NOT ESTABLISHED  
 12M TO 11Y : 2.4-2.7 ; 2.4-2.7  
 12Y TO 14Y : 2.4-2.6 ; 2.4-2.6  
 15Y TO 18Y : 2.3-2.5 ; 2.3-2.5  
 19Y TO 150Y : 2.2-2.5 ; 2.2-2.5

8408 12/7/2007 PHOSPHORUS (INORGANIC), S MCR  
 UNIT CODE ALWAYS MESSAGE - [Z82999D]  
 PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.  
 TRANSPORT TEMP : FROZEN\REFRIG OK\AMBIENT NO

MML MML TEST SETUP INFORMATION

ORDER CODE	EFF DATE	TC	TITLE	CHECKING NORMALS	PRINT NORMALS (# CODED)	PERFORM SITE *
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83817 (CONTINUED)

8408 PHOSPHORUS (INORGANIC), S  
 EXPECT RESULTS OF FORM : SHOULD BE A NUMBER BT 0.0 AND 99.9, OR "<".

UNITS: MG/DL

NO SEX

NO AGE : ; #N8408CON  
 1D TO 11M : ; NOT ESTABLISHED  
 12M TO 4Y : 4.3-5.4 ; 4.3-5.4  
 5Y TO 7Y : ; #N8408C7  
 8Y TO 13Y : ; #N8408C13  
 14Y TO 15Y : ; #N8408C15  
 16Y TO 17Y : 3.1-4.7 ; 3.1-4.7  
 18Y TO 150Y : 2.5-4.5 ; 2.5-4.5

MALE

NO AGE : ; #N8408M  
 1D TO 11M : ; NOT ESTABLISHED  
 12M TO 4Y : 4.3-5.4 ; 4.3-5.4  
 5Y TO 13Y : 3.7-5.4 ; 3.7-5.4  
 14Y TO 15Y : 3.5-5.3 ; 3.5-5.3  
 16Y TO 17Y : 3.1-4.7 ; 3.1-4.7  
 18Y TO 150Y : 2.5-4.5 ; 2.5-4.5

FEMALE

NO AGE : ; #N8408F  
 1D TO 11M : ; NOT ESTABLISHED  
 12M TO 7Y : 4.3-5.4 ; 4.3-5.4  
 8Y TO 13Y : 4.0-5.2 ; 4.0-5.2  
 14Y TO 15Y : 3.5-4.9 ; 3.5-4.9  
 16Y TO 17Y : 3.1-4.7 ; 3.1-4.7  
 18Y TO 150Y : 2.5-4.5 ; 2.5-4.5

28266 12/7/2007 CREATININE, P/S MCR  
 UNIT CODE ALWAYS MESSAGE - [Z82999D]  
 PLEASE NOTE REPORTING CHANGE EFFECTIVE 12/09/2008.  
 TRANSPORT TEMP : FROZEN\REFRIG OK\AMBIENT NO  
 8472 CREATININE, P/S

EXPECT RESULTS OF FORM : SHOULD BE A NUMBER BT 0.0 AND 99.9, OR "<".

UNITS: MG/DL

NO SEX

No AGE	:		; #N8472C0A
1D TO 1M	:		; #N8472C30DA
2M TO 11M	:		; #N8472C30DA
12M TO 23M	:		; #N8472Y2A
24M TO 2Y	:		; #N8472Y2A
3Y TO 3Y	:		; #N8472Y3A
4Y TO 4Y	:		; #N8472Y4A
5Y TO 5Y	:		; #N8472Y5A
6Y TO 8Y	:		; #N8472Y8A
9Y TO 9Y	:		; #N8472Y9A
10Y TO 11Y	:		; #N8472Y11A
12Y TO 13Y	:		; #N8472Y13A
14Y TO 15Y	:		; #N8472Y15A

MML MML TEST SETUP INFORMATION

ORDER	EFF	TC	TITLE	CHECKING NORMALS	PRINT NORMALS (# CODED)	PERFORM SITE *
CODE	DATE					
83817	(CONTINUED)					
	8472		CREATININE, P/S (CONTINUED)			
			16Y TO 150Y	:		; #N8472Y150A
			MALE			
			No AGE	:		; #N8472MA
			1D TO 1M	:		; #N8472C30DA
			2M TO 11M	:		; #N8472C30DA
			12M TO 23M	:	0.1-0.4	; 0.1-0.4
			24M TO 2Y	:	0.1-0.4	; 0.1-0.4
			3Y TO 4Y	:	0.1-0.5	; 0.1-0.5
			5Y TO 9Y	:	0.2-0.6	; 0.2-0.6
			10Y TO 11Y	:	0.3-0.7	; 0.3-0.7
			12Y TO 13Y	:	0.4-0.8	; 0.4-0.8
			14Y TO 15Y	:	0.5-0.9	; 0.5-0.9
			16Y TO 150Y	:	0.8-1.3	; 0.8-1.3
			FEMALE			
			No AGE	:		; #N8472FAB
			1D TO 1M	:		; #N8472C30DA
			2M TO 11M	:		; #N8472C30DA
			12M TO 23M	:	0.1-0.4	; 0.1-0.4
			24M TO 3Y	:	0.1-0.4	; 0.1-0.4
			4Y TO 5Y	:	0.2-0.5	; 0.2-0.5
			6Y TO 8Y	:	0.3-0.6	; 0.3-0.6
			9Y TO 11Y	:	0.4-0.7	; 0.4-0.7
			12Y TO 15Y	:	0.4-0.7	; 0.4-0.7
			16Y TO 150Y	:	0.6-1.1	; 0.6-1.1

\*PERFORMING SITE LEGEND

=====  
MCR MAYO CLINIC DPT OF LAB MED & PATHOLOGY  
200 FIRST STREET SW  
ROCHESTER, MN 55905

LAB DIRECTOR: FRANKLIN R. COCKERILL, III, M.D.

-----  
SDL MAYO CLINIC DPT OF LAB MED & PATHOLOGY  
SUPERIOR DR.  
3050 SUPERIOR DR. NW  
ROCHESTER, MN 55901

LAB DIRECTOR: FRANKLIN R. COCKERILL, III, M.D.

=====  
MML MESSAGES USED AS NORMALS  
CODE TEXT

-----  
N22826 >0.100 FAMILIAL HYPOCALCIURIC  
HYPERCALCEMIA (FHH) UNLIKELY  
<0.010 FHH LIKELY  
0.010-0.100 FHH INDETERMINENT

-----  
N7596C0 MALES:  
NOT ESTABLISHED (0-11 MO)  
2.4-2.7 (1-14 Y)  
2.4-2.6 (15-18 Y)  
2.3-2.5 (19-21 Y)  
2.2-2.5 (>= 22 Y)  
FEMALES:  
NOT ESTABLISHED (0-11 MO)  
2.4-2.7 (1-11 Y)  
2.4-2.6 (12-14 Y)  
2.3-2.5 (15-18 Y)  
2.2-2.5 (>= 19 Y)

-----  
N7596C11 2.4-2.7 (MALES 1-14 Y)  
2.4-2.7 (FEMALES 1-11 Y)

-----  
N7596C14 2.4-2.7 (MALES)  
2.4-2.6 (FEMALES)

-----  
N7596C18 2.4-2.6 (MALES)  
2.3-2.5 (FEMALES)

-----  
N7596C21 2.3-2.5 (MALES)  
2.2-2.5 (FEMALES)

-----  
N8408CON MALES  
NOT ESTABLISHED (0-11 MO)  
4.3-5.4 (1-4 Y)  
3.7-5.4 (5-13 Y)  
3.5-5.3 (14-15 Y)  
3.1-4.7 (16-17 Y)

2.5-4.5 (>= 18 Y)

FEMALES

NOT ESTABLISHED (0-11 MO)

4.3-5.4 (1-7 Y)

4.0-5.2 (8-13 Y)

3.5-4.9 (14-15 Y)

3.1-4.7 (16-17 Y)

2.5-4.5 (>= 18 Y)

-----  
N8408C13 3.7-5.4 (MALES)

4.0-5.2 (FEMALES)

-----  
N8408C15 3.5-5.3 (MALES)

3.5-4.9 (FEMALES)

-----  
N8408C7 4.3-5.4 (MALES)

3.7-5.4 (FEMALES)

-----  
N8408F NOT ESTABLISHED (0-11 MO)

4.3-5.4 (1-7 Y)

4.0-5.2 (8-13 Y)

3.5-4.9 (14-15 Y)

3.1-4.7 (16-17 Y)

2.5-4.5 (>= 18 Y)

-----  
N8408M NOT ESTABLISHED (0-11 MO)

4.3-5.4 (1-4 Y)

3.7-5.4 (5-13 Y)

3.5-5.3 (14-15 Y)

3.1-4.7 (16-17 Y)

2.5-4.5 (>= 18 Y)

-----  
N8432C MALES

NOT ESTABLISHED (0-11 MO)

9.6-10.6 (1-14 Y)

9.5-10.5 (15-16 Y)

9.5-10.4 (17-18 Y)

9.3-10.3 (19-21 Y)

8.9-10.1 (>= 22 Y)

FEMALES

NOT ESTABLISHED (0-11 MO)

9.6-10.6 (1-11 Y)

9.5-10.4 (12-14 Y)

9.1-10.3 (15-18 Y)

8.9-10.1 (>= 19 Y)

-----  
N8432C14 9.6-10.6 (MALES)

9.5-10.4 (FEMALES)

-----  
N8432C16 9.5-10.5 (MALES)

9.1-10.3 (FEMALES)

-----  
N8432C18 9.5-10.4 (MALES)  
9.1-10.3 (FEMALES)

-----  
N8432C19 9.3-10.3 (MALES)  
8.9-10.1 (FEMALES)

-----  
N8432CF NOT ESTABLISHED (0-11 MO)  
9.6-10.6 (1-11 Y)  
9.5-10.4 (12-14 Y)  
9.1-10.3 (15-18 Y)  
8.9-10.1 (>= 19 Y)

-----  
N8432CM NOT ESTABLISHED (0-11 MO)  
9.6-10.6 (1-14 Y)  
9.5-10.5 (15-16 Y)  
9.5-10.4 (17-18 Y)  
9.3-10.3 (19-21 Y)  
8.9-10.1 (>= 22 Y)

-----  
N8472C0A MALES:  
NOT ESTABLISHED (0-11 MO)  
0.1-0.4 (1-2 Y)  
0.1-0.5 (3-4 Y)  
0.2-0.6 (5-9 Y)  
0.3-0.7 (10-11 Y)  
0.4-0.8 (12-13 Y)  
0.5-0.9 (14-15 Y)  
0.8-1.3 (>=16 Y)  
FEMALES:  
NOT ESTABLISHED (0-11 MO)  
0.1-0.4 (1-3 Y)  
0.2-0.5 (4-5 Y)  
0.3-0.6 (6-8 Y)  
0.4-0.7 (9-15 Y)  
0.6-1.1 (>=16 Y)

-----  
N8472C30DA NOT ESTABLISHED

-----  
N8472FAB NOT ESTABLISHED (0-11 MO)  
0.1-0.4 (1-3 Y)  
0.2-0.5 (4-5 Y)  
0.3-0.6 (6-8 Y)  
0.4-0.7 (9-15 Y)  
0.6-1.1 (>=16 Y)

-----  
N8472MA NOT ESTABLISHED (0-11 MO)  
0.1-0.4 (1-2 Y)  
0.1-0.5 (3-4 Y)  
0.2-0.6 (5-9 Y)  
0.3-0.7 (10-11 Y)

0.4-0.8 (12-13 Y)  
0.5-0.9 (14-15 Y)  
0.8-1.3 (>=16 Y)

-----  
N8472Y11A 0.3-0.7 (MALES 10-11 Y)  
0.4-0.7 (FEMALES 9-15 Y)

-----  
N8472Y13A 0.4-0.8 (MALES 12-13 Y)  
0.4-0.7 (FEMALES 9-15 Y)

-----  
N8472Y150A 0.8-1.3 (MALES >=16 Y)  
0.6-1.1 (FEMALES >=16 Y)

-----  
N8472Y15A 0.5-0.9 (MALES 14-15 Y)  
0.4-0.7 (FEMALES 9-15 Y)

-----  
N8472Y2A 0.1-0.4 (MALES 1-2 Y)  
0.1-0.4 (FEMALES 1-3 Y)

-----  
N8472Y3A 0.1-0.5 (MALES 3-4 Y)  
0.1-0.4 (FEMALES 1-3 Y)

-----  
N8472Y4A 0.1-0.5 (MALES 3-4 Y)  
0.2-0.5 (FEMALES 4-5 Y)

-----  
N8472Y5A 0.2-0.6 (MALES 5-9 Y)  
0.2-0.5 (FEMALES 4-5 Y)

-----  
N8472Y8A 0.2-0.6 (MALES 5-9 Y)  
0.3-0.6 (FEMALES 6-8 Y)

-----  
N8472Y9A 0.2-0.6 (MALES 5-9 Y)  
0.4-0.7 (FEMALES 9-15 Y)

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TOTAL OF 33 NORMALS CODES

\*\*\* END OF REPORT \*\*\*



## LABORATORY SERVICE REPORT

1-800-533-1710

PATIENT NAME TESTING, EMIR IS		PATIENT NUMBER		AGE 40	SEX M	ACCESSION # G9129380
ORDERING PHYSICIAN		CLIENT ORDER #				ACCOUNT # LIAISONS
COLLECTION 06/12/09 10:15 A	RECEIVED	REPORT PRINTED 06/19/09 08:38 A		SPECIMEN INFORMATION DATE OF BIRTH:		
DATE TIME	DATE TIME	DATE TIME	DATE TIME			
Test Client Attn: Mayo Liaisons 200 First Street SW Rochester, MN 55905 507-284-8202						

TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
<b>Phosphorus (Inorganic), S</b>				
Phosphorus (Inorganic), S	3.2	mg/dL	2.5-4.5	MCR
<b>Calcium, Total, S</b>				
Calcium, Total, S	9.2	mg/dL	8.9-10.1	MCR
<b>Creatinine, P/S</b>				
Creatinine, P/S	1.1	mg/dL	0.8-1.3	MCR
<b>Parathyroid Hormone (PTH), S</b>				
Parathyroid Hormone (PTH), S	26	pg/mL	15-65	MCR
In the presence of normal renal function and hypercalcemia, a PTH level of >65 pg/mL is highly suggestive of primary hyperparathyroidism.				

## \* PERFORMING SITE

MCR	Mayo Clinic Dpt of Lab Med & Pathology 200 First Street SW Rochester, MN 55905	Lab Director: Franklin R. Cockerill, III, M.D.
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PATIENT NAME TESTING, EMIR IS	ORDER STATUS Final	COLLECTION DATE AND TIME 06/12/09 10:15 A
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Specimen receipt and report times are in CST/CDT

REPRINT

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