



TRACE ELEMENTS, INC.

4501 Sunbelt Drive • Addison, TX 75001 • USA

LABORATORY NO: 1285627

PROFILE NO: 2

SAMPLE TYPE: SCALP

PATIENT: KWAK. MINJUN

AGE: 4

SEX: M

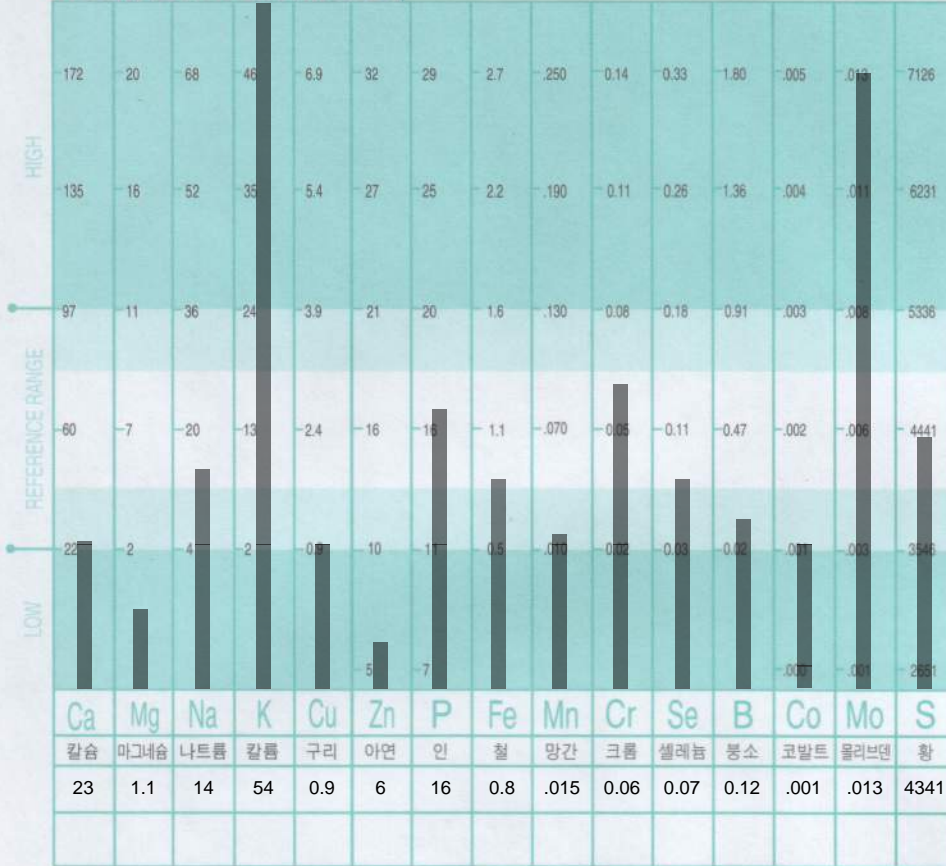
METABOLIC TYPE: FAST1

REQUESTED BY: HOONKYUNG LEE

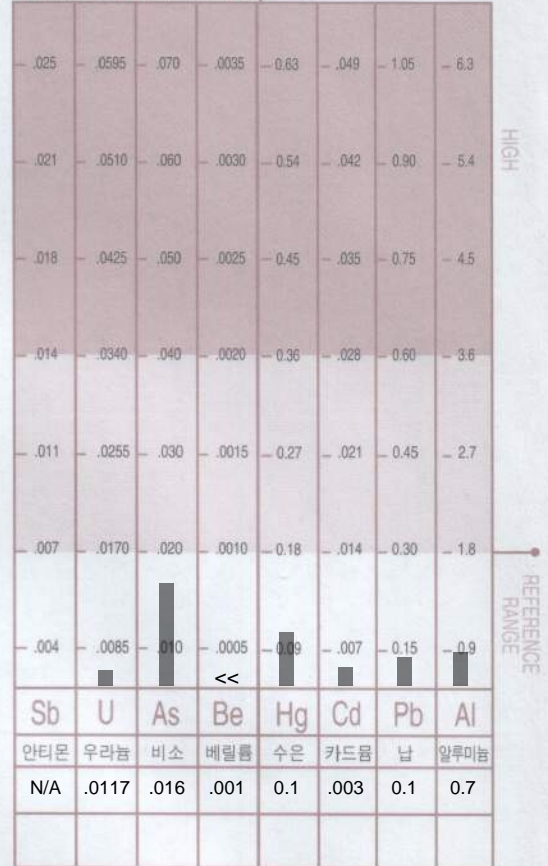
ACCOUNT NO: 4011

DATE: 2015-12-17

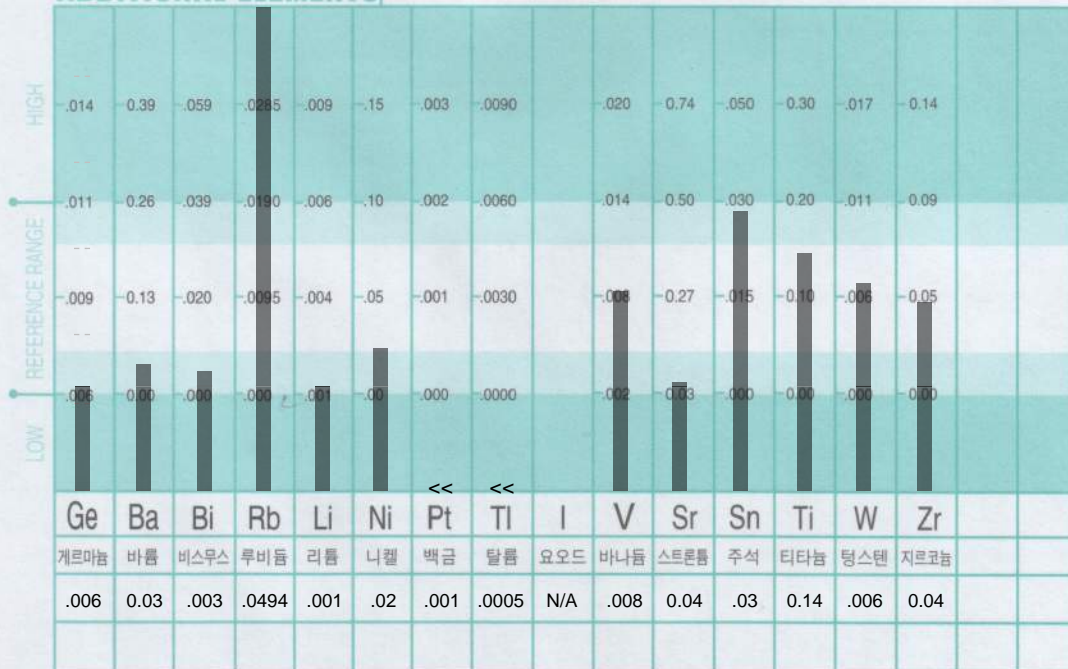
**NUTRITIONAL ELEMENTS**



**TOXIC ELEMENTS**



**ADDITIONAL ELEMENTS**



"<<" : Below Calibration Limit. Value Given Is Calibration Limit.

"QNS" : Sample Size Was Inadequate For Analysis.

"NA" : Currently Not Available

Ideal Levels And Interpretation Have Been Based On Hair Samples Obtained From The Mid-Parietal To The Occipital Region Of The Scalp

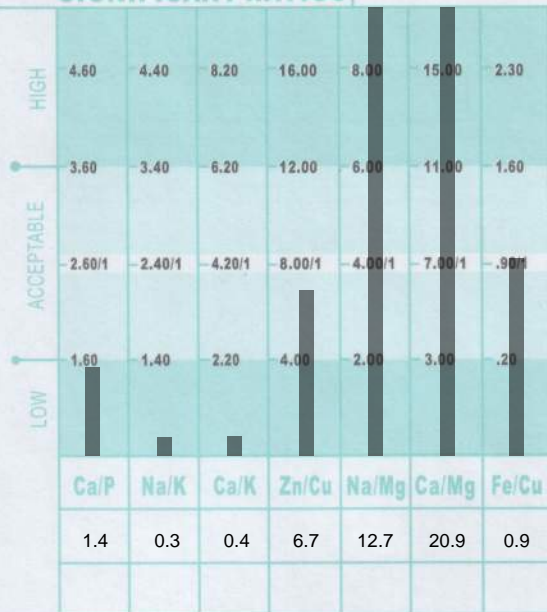
Laboratory Analysis Provided by Trace Elements, Inc., an H.H.s. Licensed Clinical Laboratory. No 45 D0481787

2015-12-17

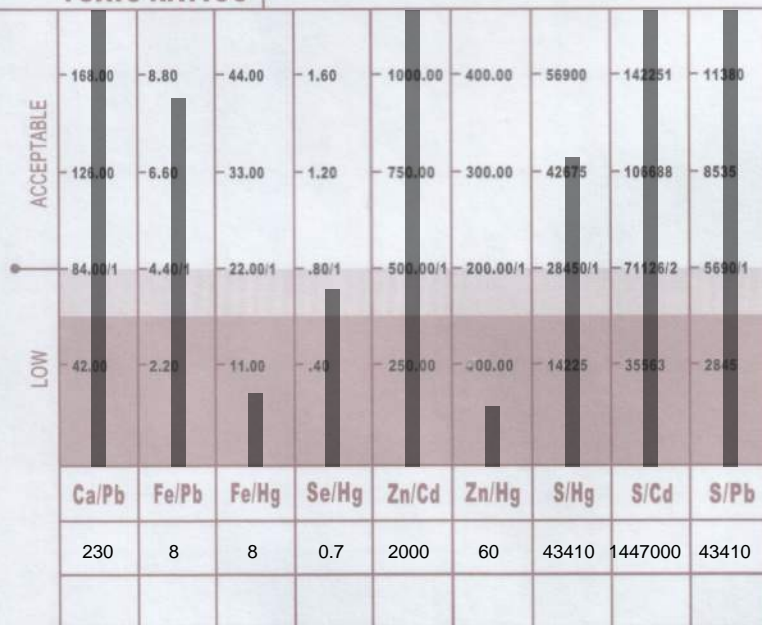
CURRENT TEST RESULTS

PREVIOUS TEST RESULTS

## SIGNIFICANT RATIOS



## TOXIC RATIOS



## ADDITIONAL RATIOS

RATIO	CALCULATED VALUE		OPTIMUM
	Current	Previous	
Ca/Sr	575		131/1
Cr/V	7.5		13/1
Cu/Mo	69.2		625/1
Fe/Co	800		440/1
K/Co	54000		2000/1
K/Li	54000		2500/1
Mg/B	9.2		40/1
S/Cu	4823.3		1138/1
Se/Tl	140		37/1
Se/Sn	2.3		0.67/1
Zn/Sn	200		167/1

## LEVELS

All mineral levels are reported in milligrams percent (milligrams per one-hundred grams of hair). One milligram percent (mg%) is equal to ten parts per million (ppm).

## NUTRITIONAL ELEMENTS

Extensively studied, the nutrient minerals have been well defined and are considered essential for many biological functions in the human body. They play key roles in such metabolic processes as muscular activity, endocrine function, reproduction, skeletal integrity and overall development.

## TOXIC ELEMENTS

The toxic minerals or "heavy metals" are well-known for their interference upon normal biochemical function. They are commonly found in the environment and therefore are present to some degree, in all biological systems. However, these metals clearly pose a concern for toxicity when accumulation occurs to excess.

## ADDITIONAL ELEMENTS

These minerals are considered as possibly essential by the human body. Additional studies are being conducted to better define their requirements and amounts needed.

## RATIOS

A calculated comparison of two minerals to each other is called a ratio. To calculate a ratio value, the first mineral level is divided by the second mineral level.

EXAMPLE: A sodium (Na) test level of 24 mg% divided by a potassium (K) level of 10 mg% equals a Na/K ratio of 2.4 to 1.

## SIGNIFICANT RATIOS

If the synergistic relationship (or ratio) between certain minerals in the body is disturbed, studies show that normal biological functions and metabolic activity can be adversely affected. Even at extremely low concentrations, the synergistic and/or antagonistic relationships between minerals still exist, which can indirectly affect metabolism.

## TOXIC RATIOS

It is important to note that individuals with elevated toxic levels may not always exhibit clinical symptoms associated with those particular toxic minerals. However, research has shown that toxic minerals can also produce an antagonistic effect on various essential minerals eventually leading to disturbances in their metabolic utilization.

## ADDITIONAL RATIOS

These ratios are being reported solely for the purpose of gathering research data. This information will then be used to help the attending health-care professional in evaluating their impact upon health.

## REFERENCE RANGES

Generally, reference ranges should be considered as guidelines for comparison with the reported test values. These reference ranges have been statistically established from studying a population of "healthy" individuals.

Important Note: The reference ranges should not be considered as absolute limits for determining deficiency, toxicity or acceptance.

**RECOMMENDATION(개인별 맞춤 영양보충제 권장)**

다음 개인별 맞춤 영양 보충제는 음식과 함께 드셔야 흡수가 증가되며 위장장애를 피하실 수 있습니다.

RECOMMENDATION	AM	NOON	PM
TEI - TS Pack	1	1	1
TEI - TTH Complex	1	1	1
Ca - TCA Plus	1	1	1
Mg - TMC Plus	1	1	1
Cr - TGT Fo	1	1	1
Vita B6 - TPD Plus	1	0	1
Zn - TZA Plus	1	0	1

권장하는 개인별 맞춤 영양보충제는 미네랄 검사 그래프 보고서 중에 그 수치가 낮거나 높게 표시된 내용에 따라 권장되지는 않습니다. 이 권장 내용은 전체적인 수치를 보여주는 것이 아니라 특정 미네랄들과의 상호관계에 따라 다른 미네랄들의 수치를 증가시키거나 감소시키는 상호작용을 통해 미네랄 수치의 균형을 맞추는데 있습니다.

권장하는 개인별 맞춤 영양보충제를 재검사 없이 장기간 동안 섭취하지 마셔야 합니다.

**유의사항**

1. 귀하에게 추천된 미네랄섭취량은 모발미네랄검사 결과에 따른 것으로 의사와의 상담에 따라 섭취량이 달라질 수 있으며, 구매하신 제품라벨에 표시된 섭취량과도 다를 수 있습니다.
2. 개인별 맞춤 영양보충제는 추가적인 영양을 공급해 주는 것이지만 균형있는 식단을 전적으로 대신할 수 없습니다.