



COLORIMETRIC ASSAY KITS

Total Antioxidant Status	Reagent 1: 30ml Reagent 2: 8ml Standard: 4ml QC Level 1: 4ml QC Level 2: 4ml
Total Oxidant Status	Reagent 1: 30ml Reagent 2: 8ml Standard: 4ml QC Level 1: 4ml QC Level 2: 4ml
Paraoxonase	Reagent 1: 30ml Reagent 2: 6ml
Arylesterase	Reagent 1: 30ml Reagent 2: 6ml Reagent 3: 15ml
Native Thiol	Reagent 1: 30ml Reagent 2: 6ml
Total Thiol	Reagent 1A: 0,2ml Reagent 1B: 15ml Reagent 2: 30 ml Reagent 3: 6ml
Malate DH	Reagent 1: 40ml Reagent 2: 8ml
Glutamate DH	Reagent 1: 40ml Reagent 2: 8ml
NADP IDH	Reagent 1: 40ml
Phosphorus	Reagent 1: 30ml Reagent 2: 25ml
Zinc	Reagent 1: 50ml Reagent 2: 10ml Standard: 4ml QC Level 1: 4ml QC Level 2: 4ml
Copper	Reagent 1: 50ml Reagent 2: 10ml Standard: 4ml QC Level 1: 4ml QC Level 2: 4ml



POCT

Semi-Auto
Biochemistry
Analyzer

OXIDATIVE STRESS TESTING

Total Antioxidant Status (TAS)
Total Oxidant Status (TOS)

CARDIOVASCULAR DISEASE RISK TESTING

Paraoxonase-1 (PON1)

TRACE ELEMENT TESTING

ZINC



Zinc is the second most abundant trace element in the body, found in more than 300 metalloenzymes. Carbonic anhydrase, alkaline phosphatase, DNA and RNA polymerases could be listed as important examples. Due to its multiple biochemical functions, zinc deficiency manifests by a variety of conditions. Growth failure and stunting, alterations in immune function, diarrhea, skin lesions and alopecia are observed in case of clinical deficiency. Subclinical deficiency has effects on immune function, synthesis and action of hormones, and neurological function.



Copper is a very important trace element for human health due to its key roles in biological processes such as energy and iron metabolism, defense against antioxidants, synthesis of neuropeptides, and immune system functions. In case of copper deficiency, significant symptoms such as neutropenia, anemia and abnormalities in bone structure are observed, while hepatocerebral and neurodegenerative findings are seen in toxicity.

COPPER

“G6PD Assay Direct From Whole Blood”



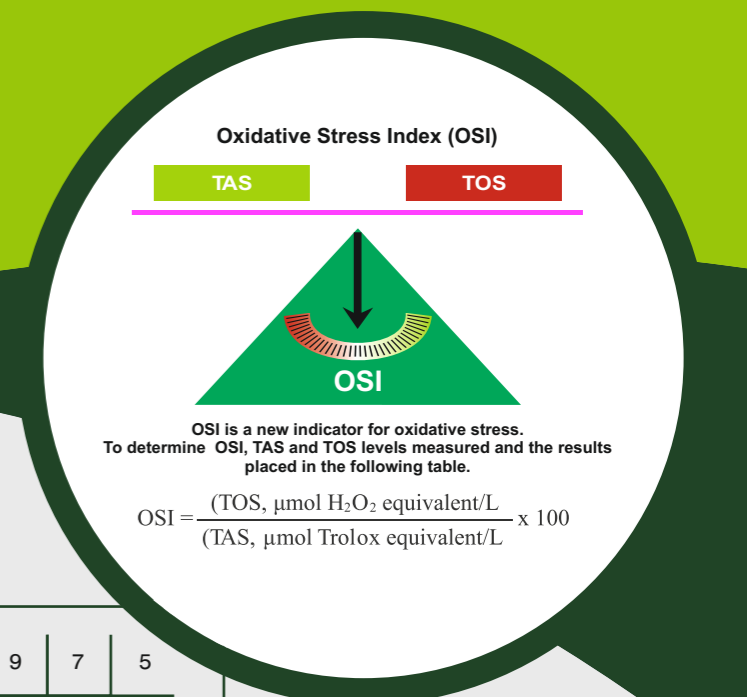
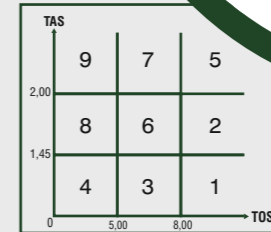
GLUCOSE-6-PHOSPHATE DEHYDROGENASE

G6PD deficiency is one of the most common enzyme deficiencies around the world, about 400 million, estimated, people have this condition. Most of G6PD-deficient people are usually asymptomatic. People with this enzyme deficiency are at risk of hemolytic anemia during increased oxidative stress. Increased oxidative stress can be the result of many actions, e.g. use of some drugs (e.g. chloroquine), infections, ingestion of fava beans. When anti-oxidative/oxidative balance is disturbed, erythrocytes get damaged. These cells are phagocytosed in the spleen. Hemoglobin is degraded into bilirubin, which causes jaundice at higher concentrations.

The Glucose-6-Phosphate Dehydrogenase Assay kit provides a simple and direct procedure for measuring G6PD activity in whole blood samples. The enzyme activity can be calculated NADP+ by change of absorbance of at 340 nm.

OXIDATIVE STRESS INDEX

1- VERY HIGH OXIDATIVE STRESS:
2- HIGH OXIDATIVE STRESS:
3- OXIDATIVE STRESS:
4- IMMUNITY AND METABOLISM DISORDERS:
5- BALANCE - MAY BE THE BEGINNING OF A DISEASE
6- NORMAL LEVEL
7- GOOD LEVEL
8- VERY GOOD LEVEL
9- BEST LEVEL



Free radicals are metabolic by products which are formed during energy conversion of nutrients in our bodies by using oxygen. Free radicals (reactive oxygen species) are in unstable form and in order to become stable they attack and damage cells. Antioxidants neutralize free radicals to protect cells from damage. Free radicals and antioxidants must be in balance thus antioxidants neutralize free radicals. If free radical level increased against antioxidant level oxidative damage occurs and this state is called oxidative stress.

Oxidative stress is not a disease, but it is a factor that can cause or accelerate the disease. Generally it is an important stimulus for preventive health measures. But the dangerous is oxidative stress is absence of any symptoms. If this condition is not diagnosed and treated, could result serious health problems and diseases. Exposure to toxins or pathogens, poor antioxidant defense system, irregular life style, extreme intense exercise and daily metabolic products, causes oxidative stress.

Rel Assay TAS and TOS test results can be evaluated independently in accordance with the following tables or we recommend to put the results of both to 9-diagnosquare to evaluate.

- This reference range is prepared in the light of the scientific data in accordance with the international literature.

- Samples used in this study carried out in Turkey by the Turkish population.

- In this study, samples were taken from 20-60 years of age healthy individuals has taken place as "normal" status.

TAS REFERENCE VALUES (mmol Trolox Equiv./L)		
>2,0		Very good
1,45	2,00	Normal
1,20	1,45	Bee considered a normal
1,00	1,20	Low antioxidant level
>1,20		Very low antioxidant level

TOS REFERENCE VALUES (μmol H ₂ O ₂ Equiv./L)		
<5,0		Very good
8,00	5,00	Normal
12,00	8,00	High oxidant level
>12,00		Very high oxidant level