

ARG83503 Rat Haptoglobin ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG83503 Rat Haptoglobin ELISA Kit is an Enzyme Immunoassay kit for the quantification of Rat Haptoglobin in Plasma, Serum and Urine
Tested Reactivity	Rat
Tested Application	ELISA
Target Name	Haptoglobin
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	0.975 ng/ml
Sample Type	Plasma, Serum and Urine
Standard Range	1.95 - 125 ng/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: less than 10% Inter-Assay CV: less than 10%
Alternate Names	HPA1S; Haptoglobin; BP; HP2ALPHA2; Zonulin

Application Instructions

Assay Time	1 hours
------------	---------

Properties

Form	96 well
Storage instruction	Store the kit at 4°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	HP
Gene Full Name	haptoglobin
Background	This gene encodes a preproprotein, which is processed to yield both alpha and beta chains, which subsequently combine as a tetramer to produce haptoglobin. Haptoglobin functions to bind free plasma hemoglobin, which allows degradative enzymes to gain access to the hemoglobin, while at the same time preventing loss of iron through the kidneys and protecting the kidneys from damage by hemoglobin. Mutations in this gene and/or its regulatory regions cause ahaptoglobinemia or hypohaptoglobinemia. This gene has also been linked to diabetic nephropathy, the incidence of coronary artery disease in type 1 diabetes, Crohn's disease, inflammatory disease behavior, primary

sclerosing cholangitis, susceptibility to idiopathic Parkinson's disease, and a reduced incidence of Plasmodium falciparum malaria. The protein encoded also exhibits antimicrobial activity against bacteria. A similar duplicated gene is located next to this gene on chromosome 16. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2014]

Function

As a result of hemolysis, hemoglobin is found to accumulate in the kidney and is secreted in the urine. Haptoglobin captures, and combines with free plasma hemoglobin to allow hepatic recycling of heme iron and to prevent kidney damage. Haptoglobin also acts as an Antimicrobial; Antioxidant, has antibacterial activity and plays a role in modulating many aspects of the acute phase response. Hemoglobin/haptoglobin complexes are rapidly cleared by the macrophage CD163 scavenger receptor expressed on the surface of liver Kupfer cells through an endocytic lysosomal degradation pathway. [UniProt]

Research Area

Cell Biology and Cellular Response antibody