abcam

Product datasheet

Human MICA ELISA Kit ab100592

2 References 3 Images

Overview

Product name	Human MICA ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 20 pg/ml
Range	13.72 pg/ml - 10000 pg/ml
Recovery	100 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	116.9	109% - 124%
Serum	112.3	95% - 129%
Plasma	93.83	75% - 107%

Assay duration	Multiple steps standard assay
Species reactivity	**Reacts with:** Human
Product overview	Abcam's MICA Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in* vitro enzyme linked immunosorbent assay for the quantitative measurement of Human MICA in serum, plasma, and cell culture supernatants. This assay employs an antibody specific for Human MICA coated on a 96-well plate. Standards and samples are pipetted into the wells and MICA present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human MICA antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of MICA bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.
Notes	Optimization may be required with urine samples.
Platform	Microplate

Properties

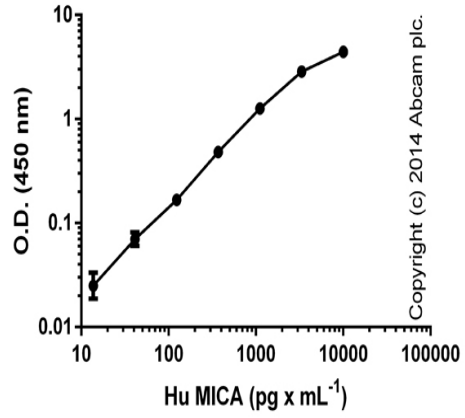
Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
300X HRP-Streptavidin Concentrate	1 x 200µl
5X Assay Diluent	1 x 15ml
Biotinylated anti-Human MICA	2 vials
MICA Microplate (12 x 8 wells)	1 unit
Recombinant Human MICA Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

Relevance The MHC class I chain-related (MIC) proteins are related to the Major histocompatibility complex (MHC) class I proteins which are ubiquitously expressed and mediate the recognition of intracellular antigens by cytotoxic T cells. The MHC class I chain-related (MIC) proteins are recognized by NKG2D, a receptor on NK and T cells, and promote anti-tumor activity. MICA, a member of the MIC family, is widely expressed on many tumors, and it is the MICA/NKG2D interaction that is thought to stimulate the anti-tumor reactivity by T lymphocytes. MICA is present in virtually every tissue except the nervous system, suggesting that MIC protein expression may only be one component of the anti-tumor activity of the immune system.

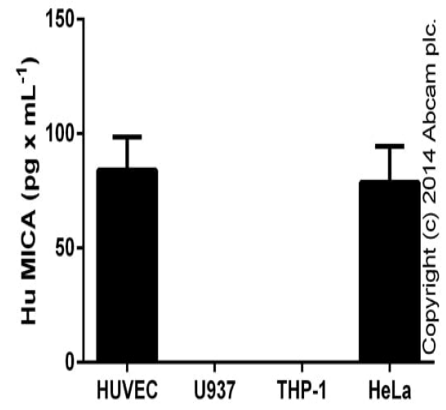
Cellular localization Plasma membrane

Images



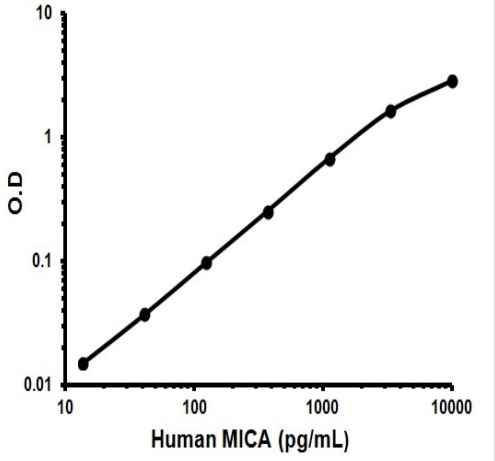
ELISA: MICA Human ELISA Kit (ab100592)

Standard curve with background signal subtracted (duplicates; +/- SD).



ELISA: MICA Human ELISA Kit (ab100592)

MICA measured in undiluted cell culture supernatants, U937 and THP-1 signals were below level of detection (13.7 pg x mL-1) (duplicates +/- SD).



Typical Standard Curve

Representative Standard Curve using ab100592.

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