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

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell culture supernatant</td>
<td>116.9</td>
<td>109% - 124%</td>
</tr>
<tr>
<td>Serum</td>
<td>112.3</td>
<td>95% - 129%</td>
</tr>
<tr>
<td>Plasma</td>
<td>93.83</td>
<td>75% - 107%</td>
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</tbody>
</table>

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.

Tested applications: Suitable for: Sandwich ELISA
Platform: Microplate
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

Applications

Our Abpromise guarantee covers the use of ab100592 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Sandwich ELISA</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
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</table>
Standard curve with background signal subtracted (duplicates; +/- SD).

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).

Representative Standard Curve using ab100592.

Typical Standard Curve

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