

Recombinant Human MICA protein(His tag)

Catalog No. PDMH100040

Note: Centrifuge before opening to ensure complete recovery of vial contents.

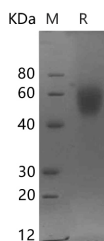
Description

| | |
|------------------------------------|---|
| Synonyms | MHC class I chain-related protein A; Stress inducible class I homolog; MHC class I polypeptide-related sequence A |
| Species | Human |
| Expression Host | HEK293 Cells |
| Sequence | Met1-Gln308 |
| Accession | Q96QC4 |
| Calculated Molecular Weight | 33 kDa |
| Observed molecular weight | 50-60 kDa |
| Tag | C-His |
| Bioactivity | Not validated for activity |

Properties

| | |
|-----------------------|---|
| Purity | > 95 % as determined by reducing SDS-PAGE. |
| Endotoxin | Please contact us for more information. |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis |

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

MHC class I chain-related molecules A (MICA) is one of the genes in the HLA class I region, which belongs to the MHC class I family. It is the member of the non-classical class I family that displays the greatest degree of polymorphism. The MICA protein product is expressed on the cell surface, although unlike canonical class I molecules do not seem to associate with beta-2-microglobulin. It is thought that MICA functions as a stress-induced antigen that is broadly recognized by NK cells, NKT cells, and most of the subtypes of T cells. The Natural killer group 2D (NKG2D), a C-type lectin-like activating immunoreceptor, is a receptor of MICA, which was detected on most gamma-delta T cells, CD8+ alpha-beta T cells, and natural killer (NK) cells. Effector cells from all these subsets could be stimulated by the ligation of NKG2D. Engagement of NKG2D activated cytolytic responses of gamma-delta T cells and NK cells against transfectants and epithelial tumor cells expressing MICA. The MICA system is a novel, avidin-free immunohistochemical detection system that provides a significant increase in sensitivity compared to traditional immunodetection systems.