

Recombinant Human MICA Protein (His Tag)

Catalog No. PKSH030855

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

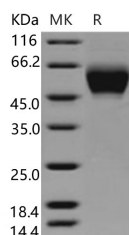
Description

Synonyms	MHC Class I Polypeptide-Related Sequence A;MIC-A;MICA;PERB11.1
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Gln 308
Accession	AAH16929.1
Calculated Molecular Weight	34.0 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
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	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

MHC class I chain-related molecules A (MICA) is one of the genes in the HLA class I region, which belongs to 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 does not seem to

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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 gammadelta T cells, CD8+ alphabeta T cells, and natural killer (NK) cells. Effector cells from all these subsets could be stimulated by ligation of NKG2D. Engagement of NKG2D activated cytolytic responses of gammadelta 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.