



Recombinant Protein Technical Manual

Recombinant Human MICA Protein (His Tag)

RPES2959

Product Data:

Product SKU: RPES2959

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: AAH16929.1

Protein Information:

Molecular Mass: 34 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity:

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: MHC Class I Polypeptide-Related Sequence A; MIC-A; MICA; PERB11.1

Immunogen Information:

Sequence: Met 1-Gln 308

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 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.