Recombinant Protein Technical Manual

Recombinant Human CD69 Protein (aa 6499, His Tag)

RPES3032

Product Data:

Product SKU: RPES3032

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: Q07108

Protein Information:

Molecular Mass: 16.9 kDa

AP Molecular Mass: 18-28 kDa

Tag: N-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

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

Storage: Lyophilized protein should be stored at < -20℃, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

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

Application:

Synonyms: Early activation antigen CD69; Activation inducer molecule; AIM; BL-AC/P26; C-type lectin domain family 2 member C; EA1; Early T-cell activation antigen p60; GP32/28; Leukocyte surface antigen Leu-23; MLR-3; CD69; CLEC2C

Immunogen Information:

Sequence: Gly64-Lys199

Background:

Human Early Activation Antigen CD69 (CD69) is a type 2 transmembrane glycoprotein in the C-type lectin family. It plays roles in immune cell trafficking, inflammation, T cell memory, and humoral immune responses. CD69 is expressed on the cell surface as an approximately 60 kDa disulfide-linked homodimer. It is found on CD4+ T cells, CD8+ T cells, NK cells, NKT cells, gamma delta cells dendritic cells (DC) and is up-regulated on activated T cells and DC. Ligation of CD69 on DC induces IL2 production, leading to T cell proliferation. CD69 is important for the homing of CD4+ T cells and plasmablasts to the bone marrow but inhibits the migration of dermal DC to draining lymph nodes. It supports the expression of multiple chemokines and chemokine receptors but suppresses the expression of others. It associates with and negatively regulates S1P1 expression on DC and CD4+ T cells, resulting in a decreased chemotactic response to S1P. The direct interaction of CD69 with Galectin contributes to the ability of CD69 to limit Th17 mediated inflamamtion while supporting the differentiation of regulatory T cells.