Data Sheet (Cat.No.TMPY-06199)

TargetMol

NKG2A/CD159a Protein, Human, Recombinant (hFc)

General Information

Synonyms: NKG2A;NKG2;killer cell lectin-like receptor subfamily C, member 1;CD159A

Protein Construction: Arg100-Ala219

Species: Human

Expression Host: HEK293 Cells

Accession: P26715-1

Molecular Weight: 41.1 kDa (Predicted); 55-70 kDa (Due to glycosylation)

QC Testing

Biological Activity: Immobilized Human NKG2A, hFc Tag at 2 μg/ml (100 μl/well) on Fc Antibody (2 μg/ml) precoated plate. Dose response curve for Biotinylated Anti-NKG2A Antibody, hFc Tag with the EC50 of 37.1 ng/ml determined by ELISA.

Purity: > 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC

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

Formulation: Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

NKG2, also known as NKG2A(CD159A), is a member of the killer cell lectin-like receptor family. NKG2A marks a unique immune effector subset preferentially co-expressing the tissue-resident CD103 molecule, but not immune checkpoint inhibitors.It is expressed only in NK-cells, but not in T-cells or B-cells.

Reference

Angelini DF, et al. (2011) NKG2A inhibits NKG2C effector functions of gamma delta T cells: implications in health and disease. J Leukoc Biol. 89(1):75-84.
Ge SJ, et al. (2011) Expression of NKG2D and NKG2A with their ligands MHC-I A/B and HLA-E in acute leukemia patients and its significance. Zhongguo Shi Yan Xue Ye Xue Za Zhi. 19(2):312-6.
Ablamunits V, et al. (2011) NKG2A is a marker for acquisition of regulatory function by human CD8+ T cells activated with anti-CD3 antibody. Eur J Immunol. 41(7):1832-42.

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