For Research Use Only

Recombinant Human KIR3DL3 protein (rFc Tag)

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Catalog Number: Eg4358

Basic Information

Species: Human

Purity: >90 %, SDS-PAGE

Tag: rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/μg protein, LAL method

Source:
HEK293-derived Human KIR3DL3 protein Gln26-Leu322 (Accession# Q8N743) with a rabbit IgG Fc tag at the C-terminus.

GeneID:
115653

Accession:
Q8N743

Predicted Molecular Mass:
58.3 kDa

SDS-PAGE:
60-70 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

KIR3DL3, a member of the killer cell immunoglobulin-like receptor (KIR) family, is an inhibitory receptor primarily expressed on natural killer (NK) cells and a subset of CD8+ T cells. It plays a role in immune regulation by recognizing specific HLA class I molecules, contributing to the balance between immune activation and inhibition. Recent research has identified KIR3DL3 as an inhibitory receptor for HHLA2, a B7 family ligand, suggesting its involvement in immune checkpoint pathways. KIR3DL3's interaction with HHLA2 can recruit SHP-1 and SHP-2 to attenuate signaling pathways such as Vav1, ERK1/2, AKT, and NF-κB, thereby inhibiting CD8+ T and NK cell functions. It is expressed on immune cells infiltrating HHLA2+ tumors from the human kidney, lung, gallbladder, and stomach, suggesting its potential as a therapeutic target for cancer.

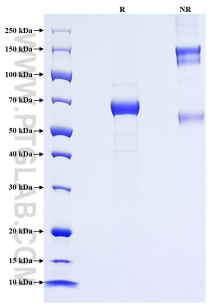
References

1.Trundley AE. et al. (2006). Immunogenetics. 57(12):904-916.
2.Wei Y. et al. (2021). Sci Immunol. 6(61):eabf9792.
3.Campbell KS. (2021). Cancer Immunol Res. 9(2):128.
4.Li Y. et al. (2023). J Adv Res. 47:137-150.

Synonyms

KIR3DL3, CD158Z, KIR3DL7, KIR44, KIRC1

Selected Validation Data



Purity of Recombinant Human KIR3DL3 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.