Leinco Technologies, Inc.
excellence in early discovery research™

Anti-Mouse NKG2A/C/E
Purified *in vivo* GOLD™ Functional Grade
Monoclonal Antibody

Product Information
Product No.: N561
Clone: 20D5
RRID: AB_2894148
Isotype: Rat IgG2a κ
Storage: Sterile 2-8°C

Product Description
Specificity:
Clone 20D5 recognizes an epitope on the mouse NKG2A, NKG2C, and NKG2E isoforms of the CD94/NKG2 heterodimer. DBA/2J mice are CD94-deficient and do not express CD94/NKG2 receptors.
Antigen Distribution:
NKG2A/C/E is expressed on NK cells, NKT cells, and activated CD8 T cells.
Background:
NKG2A/C/E antibody, clone 20D5, recognizes the NKG2A, NKG2C, and NKG2E isoforms (also known as CD159a, CD159c,m CD159e, respectively) of the NKG2 receptor, belonging to the C-type lectin-like family. NKG2 receptors are expressed at the cell surface as a heterodimer with CD94 and recognize the non-classical class I MHC-1 molecules HLA-E in humans and Qa-1 in mice[1-4]. NKG2A/C/E are expressed on natural killer (NK) cells, NKT cells, and activated CD8 T cells[5-6]. Engagement of NKG2A/CD94 transduces an inhibitory signal, blocking NK and CD8 T cell cytotoxicity and promoting self-tolerance[7]. In contrast, NKG2C/CD94 and NKGE/CD94 are activating receptors[8] and bind with lower affinity to HLA-E[9]. Cancer cells frequently overexpress HLA-E to protect against NK/CD8 T cell killing, and blocking NKG2 receptors in mice promotes anti-tumor immunity and may enhance the cytotoxic potential of other therapeutic antibodies[10,11]. The NKG2 receptor antibody monalizumab is currently in phase III clinical trials (INTERLINK-1) in combination with cetuximab in patients with recurrent or metastatic squamous cell carcinoma of the head and neck.
Known Reactivity Species:
Mouse
Format:
in vivo GOLD™, Purified in vivo Functional Grade
Immunogen:
CHO transfected cells expressing the C57BL/6 allele of NKG2A and CD94
Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
Purity
≥95% monomer by analytical SEC, >95% by SDS Page
Endotoxin
< 1.0 EU/mg as determined by the LAL method
Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

Product Preparation

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

Flow Cytometry: For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. An appropriate secondary used would be a goat-anti-mouse IgG2b FITC or brighter fluorochrome when needed.

Other Applications Reported in Literature:

IHC

B

Country of Origin

USA

References

1. Vance R.E., et al. (1998) J. Exp. Med. 188:1841–1848
2. Braud VM, et al. (1998) Nature. 391(6669):795-9
3. Vance RE, et al. (1999) J Exp Med. 190(12):1801-1812

410 Axminister Dr, St. Louis, MO 63026 (800) 538-1145 leincoglobal@leinco.com