

# Product Datasheet

www.leinco.com



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

### Product Information

**Product No.:** N560  
**Clone:** 20D5  
**RRID:** AB\_2894147  
**Isotype:** Rat IgG2a  $\kappa$   
**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, 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<sup>1-4</sup>. NKG2A/C/E are expressed on natural killer (NK) cells, NKT cells, and activated CD8 T cells<sup>5-6</sup>. Engagement of NKG2A/CD94 transduces an inhibitory signal, blocking NK and CD8 T cell cytotoxicity and promoting self-tolerance<sup>7</sup>. In contrast, NKG2C/CD94 and NKG2E/CD94 are activating receptors<sup>8</sup> and bind with lower affinity to HLA-E<sup>9</sup>. 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<sup>10,11</sup>. 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:

Purified *in vivo* Functional Grade, *in vivo* PLATINUM™

#### 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

≥98% monomer by analytical SEC, >95% by SDS Page

#### Endotoxin

≤ 0.5 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.**

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

410 Axminister Dr, St. Louis, MO 63026

(800) 538-1145

leincoglobal@leinco.com

# Product Datasheet

[www.leinco.com](http://www.leinco.com)



## 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.

## Pathogen Testing

To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's Purified Functional PLATINUM™ antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

## Applications

### Applications and Recommended Usage (Quality Tested By Leinco):

**Flow Cytometry:** For flow cytometric staining, the suggested use of this reagent is  $\leq 0.5$   $\mu$ g per million cells in 100  $\mu$ l 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
4. Brooks AG, et al. (1997) J Exp Med. 185(4):795-800
5. Gunturi A, Berg RE, Forman J. (2004) Immunol Res. 30(1):29-34

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

410 Axminster Dr, St. Louis, MO 63026

(800) 538-1145

[leincoglobal@leinco.com](mailto:leincoglobal@leinco.com)