
Anti-Mouse gp49 Receptor Functional Grade Purified

Catalog Number: 16-5784

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse gp49 Receptor
Functional Grade Purified
Catalog Number: 16-5784
Clone: H1.1
Concentration: 1 mg/mL
Host/Isotype: Armenian Hamster IgG
Endotoxin: Less than 0.001 ng/ug antibody,
as determined by the LAL assay.



Formulation: aqueous buffer, no sodium azide
Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to vial

Use By: Refer to vial

Description

The monoclonal antibody H1.1 recognizes gp49, a receptor with structural similarities to the PIR (paired Ig-activating receptors) and ILT/KIR(killer inhibitory receptors) family of proteins. Two closely linked genes on mouse chromosome 10 encode the related proteins gp49A and gp49B. These two receptors are almost 90% identical in their extracellular regions but differ in their cytoplasmic domains; gp49B contains an ITAM domain while gp49A does not and is extremely short. Expression of gp49 was originally identified on mast and LAK (IL-2 activated NK) cells. Expression on LAK cells has been shown to be predominantly gp49B with only a small amount of gp49A. Additionally gp49 is found on myeloid cells. Detailed function is not known but gp49B can inhibit cellular activation. The monoclonal antibody H1.1 recognizes both gp49A and gp49B. The H1.1 antibody has been shown to have functional activity: when crosslinked along with anti-NK1.1 it can prevent cytokine release in KY-2 cells.

Applications Reported

The H1.1 antibody has been reported for use in flow cytometric analysis and functional assays. It has been reported to block cytokine release.

Applications Tested

This H1.1 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Gu X, Laouar A, Wan J, Daheshia M, Lieberman J, Yokoyama WM, Katz HR, Manjunath N. The gp49B1 inhibitory receptor regulates the IFN-gamma responses of T cells and NK cells. J Immunol. 2003 Apr 15;170(8):4095-101. (H1.1, FC, PubMed)

Wang LL, Chu DT, Dokun AO, Yokoyama WM. Inducible expression of the gp49B inhibitory receptor on NK cells. J Immunol. 2000 May 15;164(10):5215-20. (H1.1, FC, FA PubMed)

Related Products

16-4888 Armenian Hamster IgG Isotype Control Functional Grade Purified (eBio299Arm)