

Product Data Sheet

Product Name: Anti-CD160 Antibody (MAT 302)

Cat. No.: GC79339

Chemical Properties

Cas. No.

Formula

M.Wt

Solubility

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Anti-CD160 Antibody (MAT 302) (CL1-R2) is a human monoclonal antibody targeting CD160. Anti-CD160 Antibody (MAT 302) blocks the CD160 - HVEM protein interaction, inhibits FGF2 -mediated

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

renal tubular vascular growth, and induces endothelial cell apoptosis. Anti-CD160 Antibody (MAT 302) targets CD160 on neovascularization to exert anti-angiogenic and vascular normalization effects, trigger the production of IFN- γ , TNF and IL-6 by NK cells, and enhance glucose metabolism of NK cells through the AKT / mTOR / s6k signaling pathway. Anti-CD160 Antibody (MAT 302) reduces vascular density, normalizes remaining tumor blood vessels, and inhibits tumor growth in melanoma-bearing mice. Anti-CD160 Antibody (MAT 302) can be used in research related to neovascularization, proliferative diabetic retinopathy, and melanoma [1] [2] [3] [4].

In Vivo, Anti-CD160 Antibody (MAT 302) (25-100 μ g; subconjunctival injection; 2 administrations for early/combo/monotherapy regimens, 2 administrations for late-stage regimen, and 1 administration for Fab'2 regimen) significantly inhibits corneal neovascularization (CNV) induced by FGF2 and VEGF in rabbits. It exerts a synergistic effect when combined with Bevacizumab, and early treatment reduces CNV grading by up to 73%^[1]. Anti-CD160 Antibody (MAT 302) (5 μ g per eye; intravitreal injection; single injection on postnatal day 12) effectively inhibits pathological retinal neovascularization in a mouse model of oxygen-induced retinopathy, reducing endothelial cell nuclei by approximately 35% and vascular lumens by approximately 50% compared with the control group^[2]. Anti-CD160 Antibody (MAT 302) (25 μ g per plug, mixed with Matrigel during implantation; 200 μ g per injection, directly injected into the plug, once every 2 days for 7 days) significantly inhibits FGF2-induced neovascularization in the mouse Matrigel plug assay, reducing hemoglobin content by approximately 45% compared with the control group^[2]. Combination treatment with Anti-CD160 Antibody (MAT 302) (500 μ g per injection; intraperitoneal injection; three times per week starting from the day of tumor inoculation) and Cyclophosphamide reduces the vascular density of B16 melanoma by approximately 40%, normalizes the remaining tumor blood vessels, enhances drug delivery, significantly inhibits tumor growth in mice, and improves their survival outcomes^[2].

In Vitro, Anti-CD160 Antibody (MAT 302) inhibits FGF2-mediated tubular angiogenesis in CD160-expressing human umbilical vein endothelial cells^[1]. Anti-CD160 Antibody (MAT 302) inhibits FGF2-mediated tubule formation and induces apoptosis in CD160-expressing human umbilical vein endothelial cells^[2]. Anti-CD160 Antibody (MAT 302) (6 μ g/mL) specifically binds to CD160 expressed on neovascular endothelial cells of human colon cancer^[2]. Anti-CD160 Antibody (MAT 302) (10 μ g/mL; 1-h pre-incubation followed by 24-hour cytokine stimulation) significantly enhances the production of IFN- γ and GLUT1 in total NK cells infected with HIV^[3]. Anti-CD160 Antibody (MAT

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

302) (10 µg/mL; 30-minute incubation) activates the PI3K/AKT/mTOR/s6k signaling pathway in total NK cells infected with HIV, and significantly increases the phosphorylation levels of AKT, mTOR and s6k^[3]. Anti-CD160 Antibody (MAT 302) (1-10 µg/mL; 24 h) inhibits FGF2-induced capillary tube formation in human umbilical vein endothelial cells (HUVECs)^[4]. Anti-CD160 Antibody (MAT 302) (10 µg/mL; 50 h) induces apoptosis in HUVEC in the presence of VEGF, but does not induce apoptosis in primary human fibroblasts^[4]. Anti-CD160 Antibody (MAT 302) (1-10 µg/mL; 0-50 h) induces time-dependent apoptosis in HUVECs and SGHEC-7 endothelial cells^[4]. Anti-CD160 Antibody (MAT 302) (20 µg/mL; 2 h at 4°C) binds to HUVEC and HMVEC^[4].

References:

- [1]. Menguy T, et al. Anti-CD160, Alone or in Combination With Bevacizumab, Is a Potent Inhibitor of Ocular Neovascularization in Rabbit and Monkey Models. Invest Ophthalmol Vis Sci. 2018;59(7):2687-2698.
- [2]. Chabot S, et al. A novel antiangiogenic and vascular normalization therapy targeted against human CD160 receptor. J Exp Med. 2011 May 9;208(5):973-86.
- [3]. Sun Z, et al. CD160 Promotes NK Cell Functions by Upregulating Glucose Metabolism and Negatively Correlates With HIV Disease Progression. Front Immunol. 2022;13:854432. Published 2022 Aug 19.
- [4]. Fons P, et al. Soluble HLA-G1 inhibits angiogenesis through an apoptotic pathway and by direct binding to CD160 receptor expressed by endothelial cells. Blood. 2006;108(8):2608-2615.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA