Technical Data Sheet

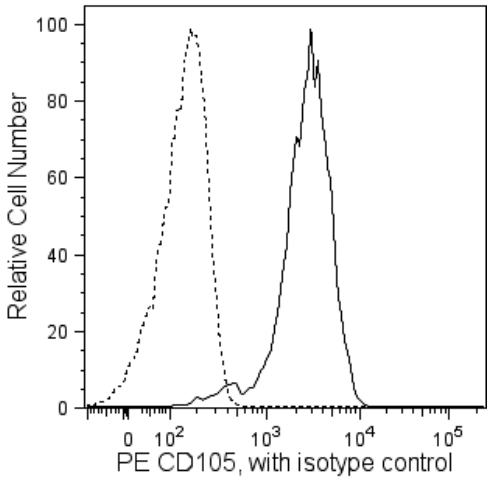
PE Mouse anti-Human CD105

Product Information

Material Number:	**560839**
Alternate Name:	END; Endoglin; HHT1; MSC; ORW; ORW1
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	266
Immunogen:	Human Umbilical Vein Endothelial Cells
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 266 monoclonal antibody specifically binds to CD105. CD105 is a type I transmembrane glycoprotein that is encoded by *END* (Endoglin) and belongs to the transforming growth factor-β (TGF-β) type III receptor family. CD105 is expressed on cells as a homodimer comprised of ~95 kDa subunits. CD105 is expressed on vascular endothelial cells and placental syncytiotrophoblasts and at lower levels on stromal fibroblasts. It is also expressed on mesenchymal stem cells, erythroid precursors, activated macrophages, pre-B cells, and some tumor cells and cell lines including U937 cells. CD105 serves as a regulatory component of the TGF-β receptor system. In association with TGF-βRI or TGF- βRII, CD105 binds TGF-β1 and TGF-β3 with high affinity but does not bind to TGF-β2. Expression of CD105 is increased on activated endothelium in tissues undergoing angiogenesis, such as in tumors, or in cases of wound healing or dermal inflammation.



Flow cytometric analysis of CD105 expression on human U937 cells. *U937 cells (ATCC, Cat No. CRL-1593.2) were stained with PE Mouse anti-Human CD105 antibody (Cat. No. 5060839; solid line histogram) or a PE mIgG1, κ isotype control (Cat. No. 554680; dashed line histogram). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using a BD LSR™ II flow cytometry system.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

Gougos A, Letarte M. Identification of a human endothelial cell antigen with monoclonal antibody 44G4 produced against a pre-B leukemic cell line. *J Immunol.* 1988; 141(6):1925-1933. (Biology)

Lastres P, Bellon T, Cabañas C, et al. Regulated expression on human macrophages of endoglin, an Arg-Gly-Asp-containing surface antigen. *Eur J Immunol.* 1992; 22(2):393-397. (Biology)

Tomchuck SL, Zwezdaryk KJ, Coffelt SB, Waterman RS, Danka ES, Scandurro AB. Toll-like receptors on human mesenchymal stem cells drive their migration and immunomodulating responses. *Stem Cells.* 2008; 26(1):99-109. (Clone-specific: Flow cytometry)

Wang JM, Kumar S, Pye D, van Agthoven AJ, Krupinski J, Hunter RD. A monoclonal antibody detects heterogeneity in vascular endothelium of tumours and normal tissues. *Int J Cancer.* 1993; 54(3):363-370. (Biology)

Westphal JR, Willems HW, Schalkwijk CJ, Ruiter DJ, de Waal RM. A new 180-kDa dermal endothelial cell activation antigen: in vitro and in situ characteristics. *J Invest Dermatol.* 1993; 100(1):27-34. (Biology)