

PE/Cyanine7 anti-human CD270 (HVEM, TR2) Antibody

Catalog# / Size	318809 / 25 tests 318810 / 100 tests
Clone	122
Regulatory Status	RUO
Workshop	HCDM listed
Other Names	TR2, Herpesvirus entry mediator A, Tumor necrosis factor receptor superfamily, member 14, TNFRSF14, Tumor necrosis factor receptor like 2, HVEM
Isotype	Mouse IgG1, κ
Description	The 122 antibody recognizes human HVEM also known as herpesvirus entry mediator A, tumor necrosis factor receptor superfamily, member 14, TNFRSF14, and tumor necrosis factor receptor like 2. HVEM, a member of the TNFR superfamily, is a type I transmembrane protein containing 2 TNF receptor domains with a predicted molecular weight of approximately 30 kD. HVEM is widely expressed in blood vessels, brain, heart, kidney, liver, lung, prostate, spleen, thymus and other organs. Resting T cells and naïve and memory B cells express high levels of HVEM as well. In humans, HVEM is not expressed in germinal center B cells. Immature dendritic cells express high levels of HVEM that is downregulated upon maturation. HVEM plays an important role in herpes simplex virus pathogenesis by enhancing entry into cells. Signaling through HVEM activates JNK1, NF-κB and AP-1 to control gene expression in response to infection or cellular stress and activate the immune response. HVEM binds to LIGHT and has also been shown to associate with several other proteins including TRAF1, TRAF2, TRAF3, TRAF5, B and T lymphocyte associated protein (BTLA), and estrogen receptor alpha.

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant human HVEM protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	The 122 antibody has been shown to be useful for flow cytometry, Western blot, and ELISA.
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.

Application References	1. Cheung TC, <i>et al.</i> 2010. <i>J. Immunol.</i> 185:1949. PubMed 2. Hobo W, <i>et al.</i> 2012. <i>J Immunol.</i> 189:39. PubMed .
(PubMed link indicates BioLegend citation)	
Product Citations	1. Celis-Gutierrez J <i>et al.</i> 2019. <i>Cell Rep.</i> 27(11):3315-3330 . PubMed
RRID	AB_2565254 (BioLegend Cat. No. 318809) AB_2565255 (BioLegend Cat. No. 318810)

Antigen Details

Structure	Member of the TNFR superfamily, type I transmembrane protein containing 2 TNF receptor domains. Predicted molecular weight approximately 30 kD.
Distribution	Widely expressed in blood vessels, brain, heart, kidney, liver, lung, prostate, spleen, thymus and other organs. Resting T cells and naïve and memory B cells express high levels of HVEM. Immature dendritic cells express high levels of HVEM that is downregulated upon maturation.
Function	Plays an important role in herpes simplex virus pathogenesis by enhancing entry into cells. Signaling through HVEM activates JNK1, NF- κ B and AP-1 to control gene expression in response to infection or cellular stress and activate the immune response.
Interaction	TRAF1, TRAF2, TRAF3, TRAF5, B and T lymphocyte associated protein (BTLA), and estrogen receptor alpha have been shown to directly interact with HVEM <i>in vivo</i> .
Ligand/Receptor	LIGHT (TNFSF14), LT α
Cell Type	B cells, Dendritic cells, T cells
Biology Area	Cell Adhesion, Cell Biology, Immunology, Signal Transduction
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Carfi A, <i>et al.</i> 2001. <i>Molec. Cell</i> 8:169. 2. Gonzalez LC, <i>et al.</i> 2005. <i>Proc. Nat. Acad. Sci.</i> 102:1116. 3. Kwon BS, <i>et al.</i> 1997. <i>J. Biol. Chem.</i> 272:13471. 4. Marsters SA, <i>et al.</i> 1997. <i>J. Biol. Chem.</i> 272:14272. 5. Montgomery RI, <i>et al.</i> 1996. <i>Cell</i> 87:427.
Gene ID	8764

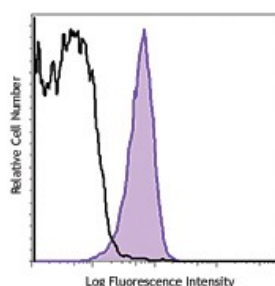
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD270 (HVEM, TR2), PE anti-human CD270 (HVEM, TR2), APC anti-human CD270 (HVEM, TR2), PE/Cyanine7 anti-human CD270 (HVEM, TR2), PerCP/Cyanine5.5 anti-human CD270 (HVEM, TR2), TotalSeq™-A0020 anti-human CD270 (HVEM, TR2), TotalSeq™-C0020 anti-human CD270 (HVEM, TR2), PE/Dazzle™ 594 anti-human CD270 (HVEM, TR2), TotalSeq™-B0020 anti-human CD270 (HVEM, TR2), TotalSeq™-D0020 anti-human CD270 (HVEM, TR2)

Product Data



Human peripheral blood lymphocytes were stained with CD270 (clone 122) PE/Cyanine7 (filled histogram) or mouse IgG1, κ PE/Cyanine7 isotype control (open histogram).

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