

## PE anti-human CD270 (HVEM, TR2) Antibody

<b>Catalog# / Size</b>	318805 / 25 tests 318806 / 100 tests
<b>Clone</b>	122
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	HCDM listed
<b>Other Names</b>	TR2, Herpesvirus entry mediator A, Tumor necrosis factor receptor superfamily, member 14, TNFRSF14, Tumor necrosis factor receptor like 2, HVEM
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Recombinant human HVEM protein
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . 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.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	The 122 antibody has been shown to be useful for flow cytometry, Western blot, and ELISA.
<b>Application References</b>	1. Cheung TC, <i>et al.</i> 2010. <i>J. Immunol.</i> 185:1949. <a href="#">PubMed</a> 2. Hobo W, <i>et al.</i> 2012. <i>J Immunol.</i> 189:39. <a href="#">PubMed</a> .
<b>(PubMed link indicates BioLegend citation)</b>	

## Product Citations

1. Jutz S, *et al.* 2016. J Immunol Methods. 430:10-20. [PubMed](#)
2. Arenas EJ, *et al.* 2021. Nat Commun. 12:1237. [PubMed](#)
3. Marraco S, *et al.* 2012. J Immunol Methods. 385:90. [PubMed](#)
4. Wang R, *et al.* 2022. J Immunother Cancer. 10:. [PubMed](#)
5. Seo GY *et al.* 2018. Cell host & microbe. 24(2):249-260 . [PubMed](#)
6. Schwertner B, *et al.* 2021. Cancers (Basel). 13:. [PubMed](#)
7. Wakeley ME, *et al.* 2020. J Surg Res. 245:610. [PubMed](#)

## RRID

AB\_2203704 (BioLegend Cat. No. 318805)  
AB\_2203703 (BioLegend Cat. No. 318806)

## Antigen Details

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<b>Structure</b>	Member of the TNFR superfamily, type I transmembrane protein containing 2 TNF receptor domains. Predicted molecular weight approximately 30 kD.
<b>Distribution</b>	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.
<b>Function</b>	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.
<b>Interaction</b>	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> .
<b>Ligand/Receptor</b>	LIGHT (TNFSF14), LTα
<b>Cell Type</b>	B cells, Dendritic cells, T cells
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Immunology, Signal Transduction
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Carfi A, <i>et al.</i> 2001. <i>Molec. Cell</i> 8:169.</li><li>2. Gonzalez LC, <i>et al.</i> 2005. <i>Proc. Nat. Acad. Sci.</i> 102:1116.</li><li>3. Kwon BS, <i>et al.</i> 1997. <i>J. Biol. Chem.</i> 272:13471.</li><li>4. Marsters SA, <i>et al.</i> 1997. <i>J. Biol. Chem.</i> 272:14272.</li><li>5. Montgomery RI, <i>et al.</i> 1996. <i>Cell</i> 87:427.</li></ol>
<b>Gene ID</b>	<a href="#">8764</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

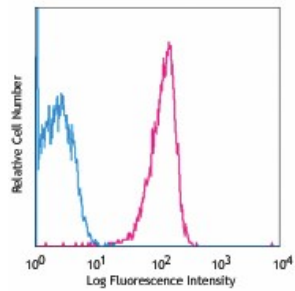
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Purified anti-human CD270 (HVEM, TR2), PE anti-human CD270 (HVEM, TR2), APC anti-human CD270 (HVEM, TR2), PE/Cyanine7 anti-human CD270 (HVEM, TR2), PerCP/Cyanine5.5 anti-human CD270 (HVEM, TR2), TotalSeq™-A0020 anti-human CD270 (HVEM, TR2), TotalSeq™-C0020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

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Human peripheral blood lymphocytes  
stained with 122 PE



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