

Recombinant Human Flt-3 Ligand

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Catalog Number:	PHC9414	PHC9415	PHC9411	PHC9413
Quantity:	10 µg	25 µg	100 µg	1 mg
Lot Number:	See product label.			
Molecular Weight:	~30 kDa; migrates as a diffuse band on SDS-PAGE due to heterogeneous glycosylation.			
Purity:	>95% as determined by SDS-PAGE analysis.			
Amino Acid Sequence:	TQDCSFQHSP ISSDFAVKIR ELSDYLLQDY PVTVASNLQD EELCGGLWRL VLAQRWMERL KTVAGSKMQG LLERVNTEIH FVTKCAFQPP PSCLRQVQTN ISRLQLQETSE QLVALKPWIT RQNFRCLEL QCQPDSTLP PPWSPRPLEA TAPTAPQP			
Biological Activity:	ED ₅₀ range = 0.5–1.0 ng/mL (Specific Activity: 2.0 × 10 ⁶ –1.0 × 10 ⁶ units/mg), determined by the dose dependent proliferation of human OCI-AML5 cells. The optimal concentration for each specific application should be determined by an initial dose response assay.			
Formulation:	Lyophilized, carrier free.			
Sterility:	Filtered prior to lyophilization through a 0.22 micron filter.			
Endotoxin:	<0.1 ng/µg			
Production:	Recombinant human Flt-3 ligand is expressed in Human Embryonic Kidney 293 cells and purified via sequential chromatography.			
Reconstitution Recommendation:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized recombinant human Flt-3 ligand in sterile, distilled water or appropriate buffered solution containing 0.1% BSA to regain full activity. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in buffered solution containing a carrier protein such as PBS + 0.1% BSA.			
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.			
Storage:	Store this lyophilized preparation at 2°C to 8°C, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤-20°C. Avoid repeated freeze/thaw cycles.			
Expiration Date:	Expires one year from date of receipt when stored as instructed.			
References:	<p>Lyman, S.D., L. James, T. Vanden Bos, P. de Vries, K. Brasel, B. Gliniak, L.T. Hollingsworth, K.S. Picha, H.J. McKenna, R.R. Splett, et al. (1993) Molecular cloning of a ligand for the Flt-3/Flk-2 tyrosine kinase receptor: a proliferative factor for primitive hematopoietic cells. <i>Cell</i> 75:1157–1167.</p> <p>McKenna, H.J., P. de Vries, K. Brasel, S.D. Lyman, and D.E. Williams (1994) Ligand for Flt-3/Flk-2 receptor tyrosine kinase regulates growth of hematopoietic stem cells and is encoded by variant RNAs. <i>Nature</i> 368:643–648.</p> <p>Lyman, S.D. (1995) Biology of Flt-3 ligand and receptor. <i>Int. J. Hematol.</i> 62:63–73.</p> <p>McKenna, H.J., P. deVries, K. Brasel, S.D. Lyman, and D.E. Williams (1995) Effect of Flt-3 ligand on the <i>ex vivo</i> expansion of human CD34+ hematopoietic progenitor cells. <i>Blood</i> 86:3413–3420.</p> <p>Dehmel, U., M. Zoborski, G. Meierhoff, O. Rosnet, D. Birnbaum, W.D. Ludwig, H. Quentmeier, and H.G. Drexler (1996) Effects of Flt-3 ligand on human leukemia cells. I. Proliferative response of myeloid leukemia cells. <i>Leukemia</i> 10:261–270.</p> <p>Namikawa, R., M.O. Muench, J.E. de Vries, and M.G. Roncarolo (1996) The Flk-2/Flt-3 ligand synergizes with interleukin-7 promoting stromal-cell-independent expansion and differentiation of human fetal pro-B cells <i>in vitro</i>. <i>Blood</i> 87:1881–1890.</p> <p>Lisovsky, M., Z. Estrov, X. Zhang, U. Consoli, G. Sanchez-Williams, V. Snell, R. Munker, A. Goodacre, V. Savchenko, and M. Andreeff (1996) Flt-3 ligand stimulates proliferation and inhibits apoptosis of acute myeloid leukemia cells: regulation of Bcl-2 and Bax. <i>Blood</i> 88:3987–3997.</p>			

References, Continued:	Lynch, D.H., A. Andreasen, E. Maraskovsky, J. Whitmore, R.E. Miller, and J.C. Schuh (1997) Flt-3 ligand induces tumor regression and antitumor immune responses in vivo. <i>Nat. Med.</i> 3:625–631. Zhang, S. and H.E. Broxmeyer (2000) Flt-3 ligand induces tyrosine phosphorylation of gab1 and gab2 and their association with shp-2, grb2, and PI3 kinase. <i>Biochem. Biophys. Res. Commun.</i> 277:195–199.
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Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

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For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

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