

Angiogenesis Related Ligands

Angiogenesis is the essential physiological process of the formation of new blood vessels from existing ones, formed earlier at the stage of vasculogenesis. It is a crucial process for the growth and development of the human body, as well as for wound healing by the formation of granulation tissue. Disorders in the angiogenesis-related signaling pathways lead to cancer or cardiovascular diseases. These diseases can be controlled by exogenous angiogenesis activators (cardiovascular) or inhibitors (cancer). Some key activators of angiogenesis include vascular endothelial growth factor (VEGF), basic fibroblast growth factor (bFGF), angiogenin, TGF- β , etc. The angiogenesis inhibitors are angiostatin, endostatin, interferon, platelet factor 4, etc.

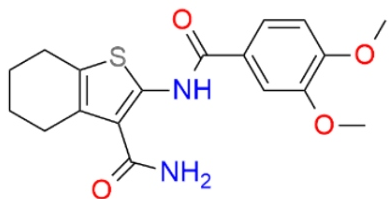
Angiogenesis Related Ligands Library consists of 760 small ligands, some representative molecules are given below: TSC359, FLT3 inhibitor; ML106, DYRK1A inhibitor; DB04760, Collagenase 3 inhibitor; Fedratinib, Cyclin-G-associated kinase inhibitor.

Related terms: COX-1, COX-2, epidermal growth factor, fms related receptor tyrosine kinase, platelet derived growth factor, fibroblast growth factor, ATI receptor, MMP8

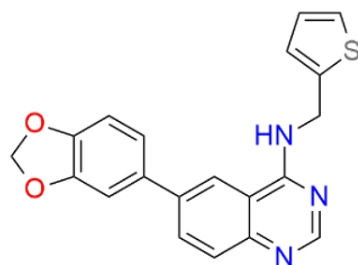
Representation of the connection between angiogenesis and cancer tumor growth

(Created By BioRender.com)

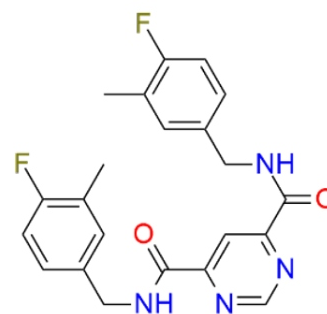
Highlights



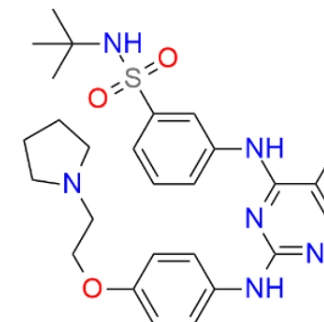
EBC-00624
CAS: 301305-73-7
TCS 359, FLT3 inhibitor



EBC-00707
CAS: 959489-44-2
MLI06, DYRK1A inhibitor



EBC-47495
CAS: 544678-85-5
DB04760, Collagenase 3
inhibitor



EBC-17140
CAS: 936091-26-8
Fedratinib, Cyclin-G-
associated kinase inhibitor

Library Composition

| Name | Occurrence in the library, times |
|---|----------------------------------|
| COX-2 | 32 |
| epidermal growth factor receptor | 29 |
| COX-1 | 24 |
| fms related receptor tyrosine kinase 3 | 21 |
| kinase insert domain receptor | 16 |
| platelet derived growth factor receptor alpha | 15 |
| platelet derived growth factor receptor beta | 14 |
| colony stimulating factor 1 receptor | 12 |
| fibroblast growth factor receptor 1 | 12 |
| AT1 receptor | 10 |
| MMP8 | 8 |

| | | |
|---|---|---|
| erb-b2 receptor tyrosine kinase 2 |  | 8 |
| MMP13 |  | 7 |
| MMP2 |  | 7 |
| fibroblast growth factor receptor 2 |  | 6 |
| fms related receptor tyrosine kinase 1 |  | 6 |
| CXCR4 |  | 6 |
| fms related receptor tyrosine kinase 4 |  | 5 |
| erb-b2 receptor tyrosine kinase 4 |  | 5 |
| MMP12 |  | 4 |
| 3-phosphoinositide dependent protein kinase 1 |  | 4 |
| MMP14 |  | 4 |
| EPH receptor A2 |  | 4 |
| KCa3.1 |  | 4 |

| | | |
|-------------------------------------|---|---|
| fibroblast growth factor receptor 3 | • | 3 |
| EP2 receptor | • | 3 |
| MMP9 | • | 3 |
| SST1 receptor | • | 3 |
| SST4 receptor | • | 3 |
| EP4 receptor | • | 3 |
| EPH receptor B4 | • | 2 |
| MMP3 | • | 2 |
| SST3 receptor | • | 2 |
| PAF receptor | • | 2 |
| TEK receptor tyrosine kinase | • | 2 |
| Liver X receptor- α | • | 1 |
| CXCR2 | • | 1 |

fibroblast growth factor receptor 4

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1

EPH receptor B1

•

1

EPH receptor A3

•

1

EPH receptor A7

•

1