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NCI Banner

NCI Thesaurus Browser Banner

Navigation Area

Imatinib Mesylate (Code C1687)

Terms and Properties | Relationships | Synonym Details | View All

View in Hierarchy View History

Terms and Properties

URL to Bookmark: http://nciterms.nci.nih.gov/NCIBrowser/ConceptReport.jsp?dictionary=NCI_Thesaurus&code=C1687

Definition: The mesylate salt of imatinib, a tyrosine kinase inhibitor with antiproliferative activity. Imatinib binds to an intracellular pocket located within tyrosine kinases (TK), thereby inhibiting ATP binding and preventing phosphorylation and the subsequent activation of growth receptors and their downstream signal transduction pathways. This agent inhibits TK encoded by the bcr-abl oncogene as well as receptor TKs encoded by the c-kit and platelet-derived growth factor receptor (PDGFR) oncogenes. Inhibition of the bcr-abl TK results in decreased proliferation and enhanced apoptosis in malignant cells of Philadelphia-positive (Ph+) hematological malignancies such as CMAL and ALL; effects on c-kit TK activity inhibit mast-cell and cellular proliferation in those diseases overexpressing c-kit, such as mastocytosis and GIST.

NCI-GLOSS Definition: A drug that is being studied for its ability to inhibit the growth of certain cancers. It interferes with a portion of the protein produced by the bcr/abl oncogene. Also called Gleevec and STI571.

Preferred Name: Imatinib Mesylate

Display Name: Imatinib Mesylate

NCI Thesaurus Code: C1687

NCI Metathesaurus CUI: 30385728 (see NCI Metathesaurus info)

Synonyms & Abbreviations:
4-[(4-Methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]benzamide Monomethanesulfonate
CGP 57148
CGP57148B
Gleevec
Glivec
IMATINIB MESYLATE
Imatinib Mesylate
imatinib mesylate
STI 571
STI-571
STI571
Synonym Details

External Source Codes:

CAS Registry Number	220127-57-1 (see NLM ChemIDplus info)
FDA UNII Code	8A1O1M485B
NSC Number	716051 (see NCI DTP info)
PDQ Closed Trial Search ID	37862 (see NCI PDQ closed clinical trial info)
PDQ Open Trial Search ID	37862 (see NCI PDQ open clinical trial info)
UMLS CUI	C0385728 (see NCI Metathesaurus info)

Other Properties:

Accepted_Therapeutic_Use_For	Philadelphia chromosome-positive chronic myelogenous leukemia and acute lymphocytic leukemia, gastrointestinal stromal tumor, hypereosinophillic syndrome, dermatofibrosarcoma protuberans, mutated-PDGFR myelodysplastic/myeloproliferative diseases.
Contributing_Source	FDA
In_Clinical_Trial_For	Acute lymphoblastic leukemia; breast cancer; chronic myelogenous leukemia; colorectal cancer; gastrointestinal neoplasms; glioma; melanoma; Merkel cell carcinoma; Metastatic dermatofibrosarcoma protuberans; myelofibrosis; ovarian epithelial; fallopian tube; or primary peritoneal cancer; prostate cancer; small cell lung cancer; unspecified solid tumors; uterine carcinoma
Semantic Type	Organic Chemical Pharmacologic Substance

Additional Concept Data:

Concept Name/OWL ID:	Imatinib
Primitive?	No (Defined)
Kind:	Chemicals_and_Drugs_Kind

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Terms and Properties | **Relationships** | Synonym Details | View All

View in Hierarchy View History

Relationships with Other NCIt Concepts

Parent Concepts: Tyrosine Kinase Inhibitor

Child Concepts: (none)

Role Relationships:
True for current concept and descendants, may be inherited from parent(s).

Chemical_Or_Drug_Affects_Abnormal_Cell	Abnormal_Myeloid_Cell
Chemical_Or_Drug_Affects_Gene_Product	Receptor_Tyrosine_Kinase
Chemical_Or_Drug_Has_Mechanism_Of_Action	Tyrosine_Kinase_Receptor_Inhibition
Chemical_Or_Drug_Has_Physiologic_Effect	Induction_of_Apoptosis
Chemical_Or_Drug_Has_Physiologic_Effect	Inhibition_of_Cell_Proliferation
Chemical_Or_Drug_Has_Physiologic_Effect	Signal_Transduction_Inhibition
Chemical_Or_Drug_Is_Metabolized_By_Enzyme	Cytochrome-P450-3A4

Association Relationships:
True only for current concept.

Concept_In_Subset	FDA Established Names and Unique Ingredient Identifier Codes Terminology
Has_Free_Acid_Or_Base_Form	Imatinib
Has_Target	BCR-ABL Oncoprotein
Has_Target	Platelet-Derived Growth Factor Receptor
Has_Target	Stem Cell Factor Receptor

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Imatinib Mesylate (Code C1687)

Terms and Properties | **Relationships** | Synonym Details | View All

View in Hierarchy View History

Relationships with Other NCIt Concepts

Parent Concepts: Tyrosine Kinase Inhibitor

Child Concepts: Lorem Ipsum Dolor

Role Relationships:
True for current concept and descendants, may be inherited from parent(s).

Chemical_Or_Drug_Affects_Abnormal_Cell	Abnormal_Myeloid_Cell
Chemical_Or_Drug_Affects_Gene_Product	Receptor_Tyrosine_Kinase
Chemical_Or_Drug_Has_Mechanism_Of_Action	Tyrosine_Kinase_Receptor_Inhibition
Chemical_Or_Drug_Has_Physiologic_Effect	Induction_of_Apoptosis
Chemical_Or_Drug_Has_Physiologic_Effect	Inhibition_of_Cell_Proliferation
Chemical_Or_Drug_Has_Physiologic_Effect	Signal_Transduction_Inhibition
Chemical_Or_Drug_Is_Metabolized_By_Enzyme	Cytochrome-P450-3A4

Association Relationships:
True only for current concept.

Concept_In_Subset	FDA Established Names and Unique Ingredient Identifier Codes Terminology
Has_Free_Acid_Or_Base_Form	Imatinib
Has_Target	BCR-ABL Oncoprotein
Has_Target	Platelet-Derived Growth Factor Receptor
Has_Target	Stem Cell Factor Receptor

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Imatinib Mesylate (Code C1687)

Terms and Properties | **Relationships** | Synonym Details | View All

View in Hierarchy View History

Relationships with Other NCIt Concepts

Parent Concepts: Tyrosine Kinase Inhibitor

Child Concepts: Cras Vehicula Dui A Magna
Lorem Ipsum Dolor
Sit Amet

Role Relationships:
True for current concept and descendants, may be inherited from parent(s).

Chemical_Or_Drug_Affects_Abnormal_Cell	Abnormal_Myeloid_Cell
Chemical_Or_Drug_Affects_Gene_Product	Receptor_Tyrosine_Kinase
Chemical_Or_Drug_Has_Mechanism_Of_Action	Tyrosine_Kinase_Receptor_Inhibition
Chemical_Or_Drug_Has_Physiologic_Effect	Induction_of_Apoptosis
Chemical_Or_Drug_Has_Physiologic_Effect	Inhibition_of_Cell_Proliferation
Chemical_Or_Drug_Has_Physiologic_Effect	Signal_Transduction_Inhibition
Chemical_Or_Drug_Is_Metabolized_By_Enzyme	Cytochrome-P450-3A4

Association Relationships:
True only for current concept.

Concept_In_Subset	FDA Established Names and Unique Ingredient Identifier Codes Terminology
Has_Free_Acid_Or_Base_Form	Imatinib
Has_Target	BCR-ABL Oncoprotein
Has_Target	Platelet-Derived Growth Factor Receptor
Has_Target	Stem Cell Factor Receptor

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Imatinib Mesylate (Code C1687)

Terms and Properties | Relationships | **Synonym Details** | View All

View in Hierarchy View History

Synonym Details

Term	Type ?	Source	Code
4-[(4-Methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]benzamide Monomethanesulfonate	SN	NCI	
CGP 57148	CN	NCI	
CGP57148B	CN	NCI	
Gleevec	BR	NCI	
Gleevec	PT	NCI-GLOSS	CDR0000258252
Gleevec	SY	DTP	NSC0716051
Glivec	FB	NCI	
Imatinib Mesylate	PT	DCP	50363
IMATINIB MESYLATE	PT	FDA	8A1O1M485B
Imatinib Mesylate	PT	NCI	
imatinib mesylate	PT	NCI-GLOSS	CDR0000044893
STI 571	SY	DTP	NSC0716051
STI-571	CN	NCI	
STI571	CN	NCI	
STI571	PT	NCI-GLOSS	CDR0000043975

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Banner (1) **Close Window [x]**

Imatinib Mesylate (Code C1687)

(2)

History

Send to Printer (3)

Edit Action	Date	Reference Code
create	2003-08-12	none
modify	2003-08-22	none
modify	2003-09-29	Imatinib Mesylate (Code C1687)
modify	2003-10-31	none
modify	2003-12-05	none
modify	2003-12-30	none
modify	2004-03-30	none
modify	2004-04-30	none
modify	2004-06-25	Imatinib Mesylate (Code C1687)
modify	2004-09-10	Imatinib Mesylate (Code C1687)
modify	2004-09-24	none
modify	2004-11-01	none
modify	2004-11-17	none
modify	2004-12-30	none
modify	2005-01-28	none
modify	2005-03-16	none
modify	2005-04-29	none
modify	2005-05-27	none
modify	2005-06-24	none
modify	2005-07-29	none
modify	2005-09-09	none
modify	2005-09-29	none
modify	2005-10-31	none
modify	2006-01-03	none
modify	2006-02-24	none
modify	2006-03-31	none
modify	2006-05-26	none
modify	2006-07-28	none
split	2006-07-28	none
modify	2006-10-27	none
modify	2006-12-01	none

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Notes

1. Banner can brand NCI, EVS, or both, but it should be different from main banner to help distinguish window as pop-up.
2. If possible within Section 508 constraints, it would be preferable to open the pop-up window at a smaller size to fit the content. Window width should be based on longest title in system.
3. "Send to Printer" link was added because users will not be able to print from pop-up otherwise.