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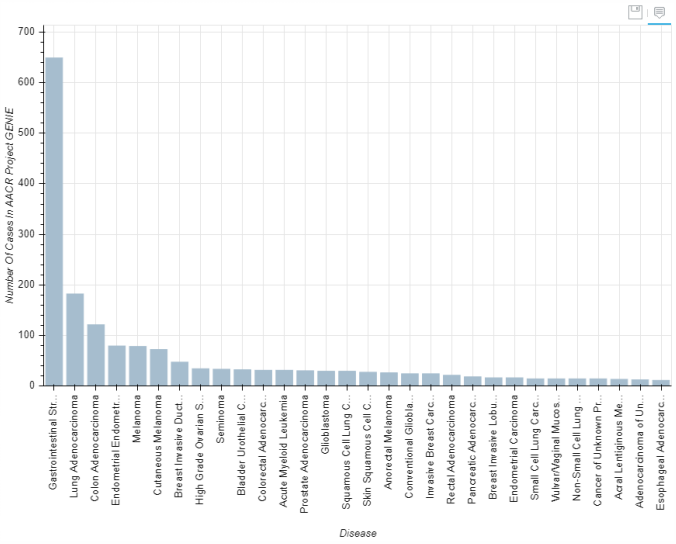
Overview

Gene Location [1]	4q12
Pathway	Receptor tyrosine kinase/growth factor signaling
Gene	KIT

KIT Mutation is present in 2.41% of AACR GENIE cases, with gastrointestinal stromal tumor, lung adenocarcinoma, colon adenocarcinoma, endometrial endometrioid adenocarcinoma, and melanoma having the greatest prevalence [4].

Top Disease Cases with KIT Mutation



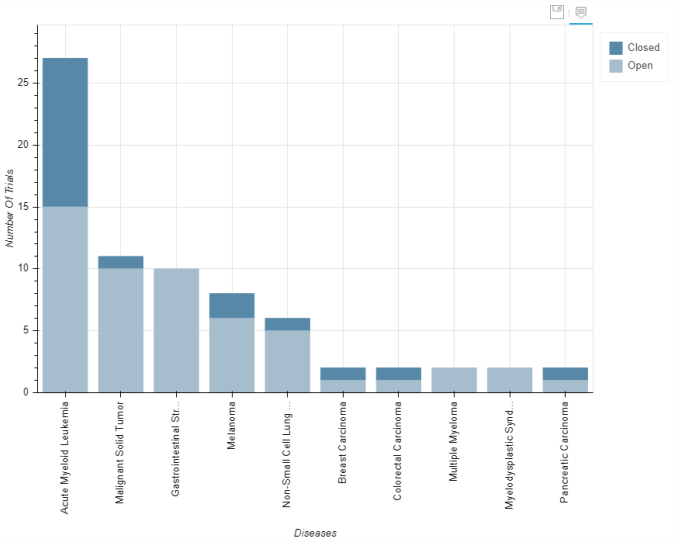
Clinical Trials

View Clinical Trials for KIT Mutation

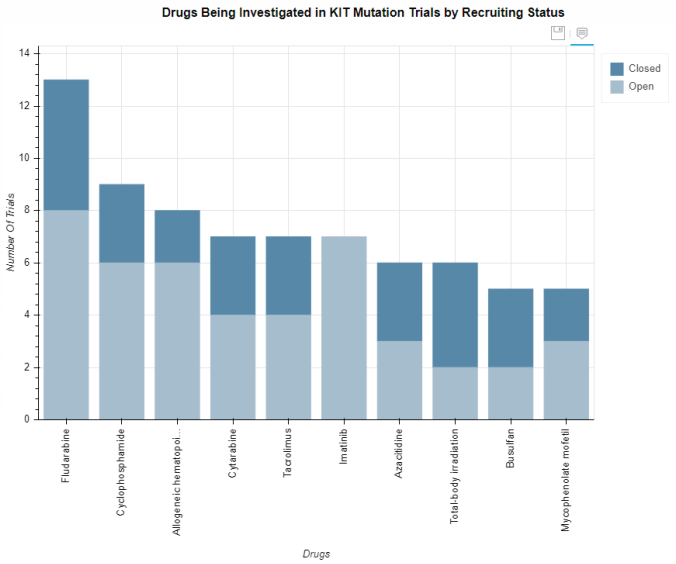
KIT Mutation serves as an inclusion eligibility criterion in 71 clinical trials, of which 49 are open and 22 are closed. Of the trials that contain KIT Mutation as an inclusion criterion, 1 is early phase 1 (0 open), 16 are phase 1 (10 open), 8 are phase 1/phase 2 (6 open), 35 are phase 2 (26 open), 2 are phase 2/phase 3 (2 open), 8 are phase 3 (5 open), and 1 is no phase specified (0 open).

Trials with KIT Mutation in the inclusion eligibility criteria most commonly target acute myeloid leukemia, malignant solid tumor, gastrointestinal stromal tumor, melanoma, and non-small cell lung carcinoma [5].

Trials Investigating KIT Mutation by Disease and Recruiting Status



Fludarabine, cyclophosphamide, allogeneic hematopoietic stem cell transplantation, cytarabine, and imatinib are the most frequent therapies in trials with KIT Mutation as an inclusion criteria [5].



Significance of KIT Mutation in Diseases

Acute Myeloid Leukemia

KIT is altered in 2.0% of acute myeloid leukemia patients with KIT Mutation present in 1.96% of all acute myeloid leukemia patients [4].

KIT Mutation is an inclusion criterion in 31 clinical trials for acute myeloid leukemia, of which 19 are open and 12 are closed. Of the trials that contain KIT Mutation and acute myeloid leukemia as inclusion criteria, 10 are phase 1 (5 open), 5 are phase 1/phase 2 (4 open), 10 are phase 2 (6 open), 2 are phase 2/phase 3 (2 open), 3 are phase 3 (2 open), and 1 is no phase specified (0 open) [5].

Myelodysplastic Syndromes

KIT is altered in 0.89% of myelodysplastic syndromes patients with KIT Mutation present in 0.89% of all myelodysplastic syndromes patients [4].

KIT Mutation is an inclusion criterion in 20 clinical trials for myelodysplastic syndromes, of which 11 are open and 9 are closed. Of the trials that contain KIT Mutation and myelodysplastic syndromes as inclusion criteria, 10 are phase 1 (5 open), 1 is phase 1/phase 2 (1 open), 7 are phase 2 (4 open), 1 is phase 3 (1 open), and 1 is no phase specified (0 open) [5].

Gastrointestinal Stromal Tumor

KIT is altered in 71.19% of gastrointestinal stromal tumor patients with KIT Mutation present in 68.75% of all gastrointestinal stromal tumor patients [4].

KIT Mutation is an inclusion criterion in 14 clinical trials for gastrointestinal stromal tumor, of which 13 are open and 1 is closed. Of the trials that contain KIT Mutation and gastrointestinal stromal tumor as inclusion criteria, 3 are phase 1 (3 open), 1 is phase 1/phase 2 (1 open), 6 are phase 2 (6 open), and 4 are phase 3 (3 open) [5].

Acute Lymphoblastic Leukemia

KIT Mutation is an inclusion criterion in 14 clinical trials for acute lymphoblastic leukemia, of which 8 are open and 6 are closed. Of the trials that contain KIT Mutation and acute lymphoblastic leukemia as inclusion criteria, 6 are phase 1 (3 open), 1 is phase 1/phase 2 (1 open), 5 are phase 2 (3 open), 1 is phase 3 (1 open), and 1 is no phase specified (0 open) [5].

Melanoma

KIT is altered in 6.55% of melanoma patients with KIT Mutation present in 5.89% of all melanoma patients [4].

KIT Mutation is an inclusion criterion in 13 clinical trials for melanoma, of which 7 are open and 6 are closed. Of the trials that contain KIT Mutation and melanoma as inclusion criteria, 3 are phase 1 (2 open), 2 are phase 1/phase 2 (1 open), 7 are phase 2 (4 open), and 1 is phase 3 (0 open) [5].

Malignant Solid Tumor

KIT is altered in 3.15% of malignant solid tumor patients with KIT Mutation present in 2.63% of all malignant solid tumor patients [4].

KIT Mutation is an inclusion criterion in 13 clinical trials for malignant solid tumor, of which 11 are open and 2 are closed. Of the trials that contain KIT Mutation and malignant solid tumor as inclusion criteria, 5 are phase 1 (4 open), 1 is phase 1/phase 2 (1 open), and 7 are phase 2 (6 open) [5].

Chronic Myeloid Leukemia

KIT is altered in 0.85% of chronic myeloid leukemia patients with KIT Mutation present in 0.85% of all chronic myeloid leukemia patients [4].

KIT Mutation is an inclusion criterion in 11 clinical trials for chronic myeloid leukemia, of which 7 are open and 4 are closed. Of the trials that contain KIT Mutation and chronic myeloid leukemia as inclusion criteria, 5 are phase 1 (3 open), 2 are phase 1/phase 2 (2 open), 3 are phase 2 (2 open), and 1 is no phase specified (0 open) [5].

Multiple Myeloma

KIT is altered in 0.4% of multiple myeloma patients with KIT Mutation present in 0.4% of all multiple myeloma patients [4].

KIT Mutation is an inclusion criterion in 9 clinical trials for multiple myeloma, of which 6 are open and 3 are closed. Of the trials that contain KIT Mutation and multiple myeloma as inclusion criteria, 5 are phase 1 (3 open), 3 are phase 2 (3 open), and 1 is no phase specified (0 open) [5].

Chronic Myelomonocytic Leukemia

KIT is altered in 2.54% of chronic myelomonocytic leukemia patients with KIT Mutation present in 2.54% of all chronic myelomonocytic leukemia patients [4].

KIT Mutation is an inclusion criterion in 7 clinical trials for chronic myelomonocytic leukemia, of which 5 are open and 2 are closed. Of the trials that contain KIT Mutation and chronic myelomonocytic leukemia as inclusion criteria, 4 are phase 1 (3 open), 1 is phase 1/phase 2 (1 open), and 2 are phase 2 (1 open) [5].

Non-Small Cell Lung Carcinoma

KIT is altered in 2.09% of non-small cell lung carcinoma patients with KIT Mutation present in 1.76% of all non-small cell lung carcinoma patients [4].

KIT Mutation is an inclusion criterion in 7 clinical trials for non-small cell lung carcinoma, of which 6 are open and 1 is closed. Of the trials that contain KIT Mutation and non-small cell lung carcinoma as inclusion criteria, 3 are phase 1 (2 open) and 4 are phase 2 (4 open) [5].

Hodgkin Lymphoma

KIT Mutation is an inclusion criterion in 7 clinical trials for hodgkin lymphoma, of which 3 are open and 4 are closed. Of the trials that contain KIT Mutation and hodgkin lymphoma as inclusion criteria, 5 are phase 1 (2 open), 1 is phase 2 (1 open), and 1 is no phase specified (0 open) [5].

Non-Hodgkin Lymphoma

KIT is altered in 1.3% of non-hodgkin lymphoma patients with KIT Mutation present in 1.17% of all non-hodgkin lymphoma patients [4].

KIT Mutation is an inclusion criterion in 6 clinical trials for non-hodgkin lymphoma, of which 3 are open and 3 are closed. Of the trials that contain KIT Mutation and non-hodgkin lymphoma as inclusion criteria, 6 are phase 1 (3 open) [5].

Acute Biphenotypic Leukemia

KIT Mutation is an inclusion criterion in 6 clinical trials for acute biphenotypic leukemia, of which 2 are open and 4 are closed. Of the trials that contain KIT Mutation and acute biphenotypic leukemia as inclusion criteria, 3 are phase 1 (1 open), 2 are phase 2 (1 open), and 1 is no phase specified (0 open) [5].

Chronic Lymphocytic Leukemia

KIT Mutation is an inclusion criterion in 5 clinical trials for chronic lymphocytic leukemia, of which 3 are open and 2 are closed. Of the trials that contain KIT Mutation and chronic lymphocytic leukemia as inclusion criteria, 4 are phase 1 (2 open) and 1 is phase 2 (1 open) [5].

Myeloproliferative Neoplasm

KIT is altered in 0.59% of myeloproliferative neoplasm patients with KIT Mutation present in 0.59% of all myeloproliferative neoplasm patients [4].

KIT Mutation is an inclusion criterion in 4 clinical trials for myeloproliferative neoplasm, of which 3 are open and 1 is closed. Of the trials that contain KIT Mutation and myeloproliferative neoplasm as inclusion criteria, 1 is phase 1 (1 open), 2 are phase 2 (2 open), and 1 is no phase specified (0 open) [5].

Myelodysplastic/Myeloproliferative Neoplasm

KIT is altered in 2.7% of myelodysplastic/myeloproliferative neoplasm patients with KIT Mutation present in 2.7% of all myelodysplastic/myeloproliferative neoplasm patients [4].

KIT Mutation is an inclusion criterion in 3 clinical trials for myelodysplastic/myeloproliferative neoplasm, of which 2 are open and 1 is closed. Of the trials that contain KIT Mutation and myelodysplastic/myeloproliferative neoplasm as inclusion criteria, 1 is phase 1 (1 open) and 2 are phase 2 (1 open) [5].

Acute Leukemia

KIT is altered in 1.95% of acute leukemia patients with KIT Mutation present in 1.91% of all acute leukemia patients [4].

KIT Mutation is an inclusion criterion in 3 clinical trials for acute leukemia, of which 1 is open and 2 are closed. Of the trials that contain KIT Mutation and acute leukemia as inclusion criteria, 1 is phase 1 (0 open), 1 is phase 2 (1 open), and 1 is no phase specified (0 open) [5].

Therapy-Related Myelodysplastic Syndrome

KIT is altered in 1.41% of therapy-related myelodysplastic syndrome patients with KIT Mutation present in 1.41% of all therapy-related myelodysplastic syndrome patients [4].

KIT Mutation is an inclusion criterion in 3 clinical trials for therapy-related myelodysplastic syndrome, of which 3 are open and 0 are closed. Of the trials that contain KIT Mutation and therapy-related myelodysplastic syndrome as inclusion criteria, 2 are phase 1 (2 open) and 1 is phase 2 (1 open) [5].

Lymphoma

KIT is altered in 1.15% of lymphoma patients with KIT Mutation present in 1.01% of all lymphoma patients [4].

KIT Mutation is an inclusion criterion in 3 clinical trials for lymphoma, of which 2 are open and 1 is closed. Of the trials that contain KIT Mutation and lymphoma as inclusion criteria, 1 is phase 1 (0 open), 1 is phase 1/phase 2 (1 open), and 1 is phase 2 (1 open) [5].

Pancreatic Carcinoma

KIT is altered in 0.62% of pancreatic carcinoma patients with KIT Mutation present in 0.62% of all pancreatic carcinoma patients [4].

KIT Mutation is an inclusion criterion in 3 clinical trials for pancreatic carcinoma, of which 2 are open and 1 is closed. Of the trials that contain KIT Mutation and pancreatic carcinoma as inclusion criteria, 1 is phase 1 (0 open) and 2 are phase 2 (2 open) [5].

Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma

KIT is altered in 0.51% of chronic lymphocytic leukemia/small lymphocytic lymphoma patients with KIT Mutation present in 0.51% of all chronic lymphocytic leukemia/small lymphocytic lymphoma patients [4].

KIT Mutation is an inclusion criterion in 3 clinical trials for chronic lymphocytic leukemia/small lymphocytic lymphoma, of which 2 are open and 1 is closed. Of the trials that contain KIT Mutation and chronic lymphocytic leukemia/small lymphocytic lymphoma as inclusion criteria, 1 is phase 1 (1 open), 1 is phase 2 (1 open), and 1 is no phase specified (0 open) [5].

Double-Hit Lymphoma

KIT Mutation is an inclusion criterion in 3 clinical trials for double-hit lymphoma, of which 1 is open and 2 are closed. Of the trials that contain KIT Mutation and double-hit lymphoma as inclusion criteria, 3 are phase 1 (1 open) [5].

Refractory Anemia With Excess Blasts

KIT Mutation is an inclusion criterion in 3 clinical trials for refractory anemia with excess blasts, of which 1 is open and 2 are closed. Of the trials that contain KIT Mutation and refractory anemia with excess blasts as inclusion criteria, 1 is phase 1 (0 open) and 2 are phase 2 (1 open) [5].

Small Lymphocytic Lymphoma

KIT Mutation is an inclusion criterion in 3 clinical trials for small lymphocytic lymphoma, of which 1 is open and 2 are closed. Of the trials that contain KIT Mutation and small lymphocytic lymphoma as inclusion criteria, 3 are phase 1 (1 open) [5].

Soft Tissue Sarcoma

KIT is altered in 30.77% of soft tissue sarcoma patients with KIT Mutation present in 28.89% of all soft tissue sarcoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for soft tissue sarcoma, of which 2 are open and 0 are closed. Of the trials that contain KIT Mutation and soft tissue sarcoma as inclusion criteria, 1 is phase 1 (1 open) and 1 is phase 2 (1 open) [5].

Mucosal Melanoma

KIT is altered in 18.02% of mucosal melanoma patients with KIT Mutation present in 13.37% of all mucosal melanoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for mucosal melanoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and mucosal melanoma as inclusion criteria, 2 are phase 2 (1 open) [5].

Anaplastic Large Cell Lymphoma

KIT is altered in 2.86% of anaplastic large cell lymphoma patients with KIT Mutation present in 2.86% of all anaplastic large cell lymphoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for anaplastic large cell lymphoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and anaplastic large cell lymphoma as inclusion criteria, 1 is phase 2 (1 open) and 1 is no phase specified (0 open) [5].

Cancer

KIT is altered in 2.98% of cancer patients with KIT Mutation present in 2.51% of all cancer patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for cancer, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and cancer as inclusion criteria, 1 is early phase 1 (0 open) and 1 is phase 2 (1 open) [5].

Colorectal Carcinoma

KIT is altered in 2.04% of colorectal carcinoma patients with KIT Mutation present in 1.95% of all colorectal carcinoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for colorectal carcinoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and colorectal carcinoma as inclusion criteria, 1 is phase 1 (0 open) and 1 is phase 2 (1 open) [5].

Bladder Carcinoma

KIT is altered in 1.85% of bladder carcinoma patients with KIT Mutation present in 1.85% of all bladder carcinoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for bladder carcinoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and bladder carcinoma as inclusion criteria, 1 is phase 1 (0 open) and 1 is phase 2 (1 open) [5].

Head And Neck Squamous Cell Carcinoma

KIT is altered in 1.89% of head and neck squamous cell carcinoma patients with KIT Mutation present in 1.65% of all head and neck squamous cell carcinoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for head and neck squamous cell carcinoma, of which 2 are open and 0 are closed. Of the trials that contain KIT Mutation and head and neck squamous cell carcinoma as inclusion criteria, 1 is phase 1 (1 open) and 1 is phase 2 (1 open) [5].

Ovarian Carcinoma

KIT is altered in 1.69% of ovarian carcinoma patients with KIT Mutation present in 1.54% of all ovarian carcinoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for ovarian carcinoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and ovarian carcinoma as inclusion criteria, 1 is phase 1 (0 open) and 1 is phase 2 (1 open) [5].

Adenocarcinoma Of The Gastroesophageal Junction

KIT is altered in 1.41% of adenocarcinoma of the gastroesophageal junction patients with KIT Mutation present in 1.41% of all adenocarcinoma of the gastroesophageal junction patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for adenocarcinoma of the gastroesophageal junction, of which 2 are open and 0 are closed. Of the trials that contain KIT Mutation and adenocarcinoma of the gastroesophageal junction as inclusion criteria, 2 are phase 2 (2 open) [5].

Head And Neck Carcinoma

KIT is altered in 2.11% of head and neck carcinoma patients with KIT Mutation present in 1.41% of all head and neck carcinoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for head and neck carcinoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and head and neck carcinoma as inclusion criteria, 1 is phase 1 (0 open) and 1 is phase 2 (1 open) [5].

Breast Carcinoma

KIT is altered in 1.47% of breast carcinoma patients with KIT Mutation present in 1.07% of all breast carcinoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for breast carcinoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and breast carcinoma as inclusion criteria, 1 is phase 1 (0 open) and 1 is phase 2 (1 open) [5].

B-Cell Non-Hodgkin Lymphoma

KIT is altered in 1.03% of B-cell non-hodgkin lymphoma patients with KIT Mutation present in 0.94% of all B-cell non-hodgkin lymphoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for B-cell non-hodgkin lymphoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and B-cell non-hodgkin lymphoma as inclusion criteria, 1 is phase 1 (0 open) and 1 is phase 2 (1 open) [5].

Follicular Lymphoma

KIT is altered in 0.92% of follicular lymphoma patients with KIT Mutation present in 0.92% of all follicular lymphoma patients [4].

KIT Mutation is an inclusion criterion in 2 clinical trials for follicular lymphoma, of which 1 is open and 1 is closed. Of the trials that contain KIT Mutation and follicular lymphoma as inclusion criteria, 1 is phase 2 (1 open) and 1 is no phase specified (0 open) [5].

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