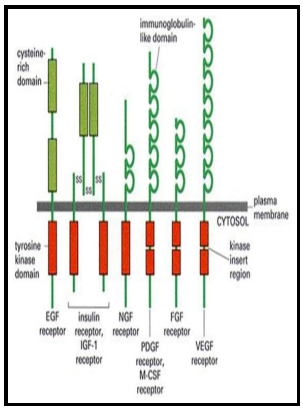
# Biochemical analysis of activating mutations of the Kit receptor tyrosine kinase

## National Library of Canada - Constitutively activating mutations of c




Description: -
-Biochemical analysis of activating mutations of the Kit receptor tyrosine kinase
-
A Magyar néprajz klasszikusai
Canadian theses = -- Thèses canadiennesBiochemical analysis of activating mutations of the Kit receptor tyrosine kinase
Notes: Thesis (M.Sc.) -- University of Toronto, 1998.
This edition was published in 1998



Filesize: 50.65 MB

Tags: #Activating #mutations #in #c

**Constitutively Activating Mutations of c**

Gain-of-function mutations of Kit are associated with several human neoplasms including acute myelogenous leukemia, gastrointestinal stromal tumors, mastocytomas, and nasal T-cell lymphomas. PMID: 30446652 Free PMC article.

**Oncogenic mutation in the Kit receptor tyrosine kinase alters substrate specificity and induces degradation of the protein tyrosine phosphatase SHP**

To test this hypothesis, 32P-labeled Kit and KDY receptors were isolated from control and Steel-factor-stimulated cells and subjected to tryptic phosphopeptide mapping Fig. Siminovitch, Samuel Lunenfeld Research Institute. D Calculation of the unfolded fraction of the wild-type Kit JM peptide as a function of temperature.

**Constitutively activating mutations of c**

The background NADH oxidation rate of 0. C Kit autophosphorylation in the presence of phospho-JM peptide. The ligand binds via the second and third immunoglobulin domains.

**Oncogenic mutation in the Kit receptor tyrosine kinase alters substrate specificity and induces degradation of the protein tyrosine phosphatase SHP**

The amount of Kit bound to immobilized peptides or to BSA-blocked streptavidin beads lane b was detected by α-histidine blotting output. For wild-type Kit, 20, 40, 80, and 120 nM concentrations are represented by filled circles, open circles, filled triangles, and open squares, respectively.

**KIT (gene)**

The Kit RTK and its ligand Steel factor, that are encoded by the murine Dominant white spotting W and Steel Sl loci, respectively, play major

roles in regulating at least four cell types, including primordial germ cells, hematopoietic cells, melanocytes, and the interstitial cells of Cajal ICC in the gut —.

**Analysis of potential receptor tyrosine kinase targets in intimal and mural sarcomas**

Manual of Diagnostic Cytology 2 ed. One out of 20 of the input kinases was loaded for comparison. It is interesting to note the parallels between the Kit KDY mutation and the mutation at position 918 of the RET RTK observed in patients with multiple endocrine neoplasia type 2B.

**Analysis of potential receptor tyrosine kinase targets in intimal and mural sarcomas**

Activation of Kit involves phosphorylation of the JM domain and activation segment. Kit autophosphorylation in the absence of the JM peptide was normalized to 100%. Work described herein was supported by grants from the Medical Research Council of Canada and the National Cancer Institute of Canada.

**Investigating Molecular Mechanisms of Activation and Mutation of the HER2 Receptor Tyrosine Kinase through Computational Modeling and Simulation**

DISCUSSION In this paper, we have analyzed the biochemical mechanism of action of the codon 814 mutation in the murine Kit receptor KDY. Thus, this mutation activates the oncogenic potential of Kit by a novel mechanism involving an alteration in Kit substrate recognition and the degradation of SHP-1, an attenuator of the Kit signaling pathway.

## Related Books

- Modern real estate practice in Illinois
- Dartmoor
- Contamination of freshwater by 54 Mn and 60 Co - Report prepared by the Centre dEtude de lEnergie Nu
- Bouteflika, un homme et...ses rivaux
- English dialect dictionary - being the complete vocabulary of all dialect words still in use, or kno