Controlling the activity of the Tec kinase Itk by mutation of the phenylalanine gatekeeper residue

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Supplementary Figure:

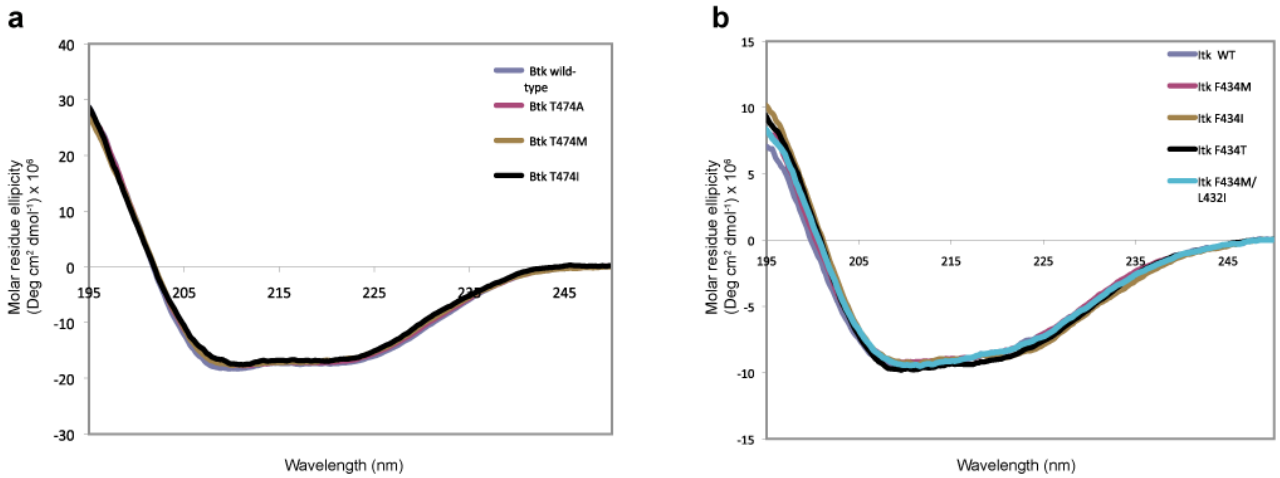
Figure S1: CD spectra of the Btk and Itk isolated kinase domains. (a) The CD spectra of wild-type isolated Btk kinase domain superimposed with spectra of the isolated Btk kinase domain mutants (T474A, T474M and T474I). (b) The CD spectra of wild-type isolated Itk kinase domain superimposed with spectra of the isolated Itk kinase domain mutants (F434M, F434I, F434T single mutants and L432I/F434M double mutant).

Materials and Methods:

Circular dichroism spectra

CD measurements of the Btk and Itk kinase domains were performed on a Jasco J-715 CD spectropolarimeter (Jasco Inc.) in the far-UV region (195–240 nm) at 25 °C. Samples were prepared in 10 mM NaH_2PO_4 (pH 7.4) at a concentration of 4 μM. CD spectra were recorded at a scanning rate of 50 nm/min with a spectral bandwidth of 2 nm and response times of 2 ms. Two accumulations were acquired and the results were averaged. After background subtraction, all the CD data were converted from mdegree into molar residue ellipticity (deg cm^2 $dmol^{-1}$).

Figure S1


a
Molar residue ellipicity (Deg cm² dmol⁻¹) x 10⁶
Wavelength (nm)
Btk wild-type
Btk T474A
Btk T474M
Btk T474I
b
Molar residue ellipicity (Deg cm² dmol⁻¹) x 10⁶
Wavelength (nm)
Itk WT
Itk F434M
Itk F434I
Itk F434T
Itk F434M/ L432I