**Binding data for Sirtuins:**

1. ***Sirt5 Deacylation Activities Show Differential Sensitivities to Nicotinamide Inhibition***

*Fischer et al, PLOS 2012*

1. **Sirt5 affinities**:
* CPS1 peptide: Kd = 2.3 ± 1.5 µM
* ACS2 peptide: Kd = 2.1 ± 0.7 µM
* NAD+: Kd = 0.98 ± 0.28 mM
* NAD+ (under peptide saturation): Kd = 0.20 ± 0.07 mM
* NAD+ (in presence of 0.5 mM NAM): Kd = 0.92 ± 0.23 mM
* NAD+ (in presence of 5 mM NAM): Kd = 1.44 ± 0.28 mM
* NAD+ (in presence of 10 mM NAM): Kd = 1.94 ± 0.37 mM
1. **Sirt3 affinities**:
* ACS2-Lys642 peptide: Kd = 2.4 ± 1.0 µM
* NAD+: Kd = 0.71 ± 0.23 mM
* NAD+ (under peptide saturation): Kd = 0.26 ± 0.15 mM
* NAD+ (in presence of 0.5 mM NAM): Kd = 0.83 ± 0.24 mM
1. ***Ex-527 inhibits Sirtuins by exploiting their unique NAD+ dependent deacetylation mechanism***

*Gertz et al, PNAS 2013*

1. **Sirt3 affinities:**
* Ex-527: Kd > 330 µM
* Ex-527 (saturated with 1 mM peptide substrate): Kd > 180 µM
* Ex-527 (saturated with 5 mM NAD+): Kd = 16.5 ± 2.9 µM
* Ex-527 (saturated with 1 mM peptide substrate and 5 mM NAD+): Kd = 10.0 ± 1.4 µM
1. **Sir2Tm affinities:**
* Ex-527: Kd > 180 µM
* Ex-527 (saturated with 1 mM peptide substrate): Kd > 170 µM
* Ex-527 (saturated with 5 mM NAD+): Kd = 6.0 ± 0.4 µM
* Ex-527 (saturated with 1 mM peptide substrate and 5 mM NAD+): Kd = 4.9 ± 0.5 µM
1. ***Crystal Structures of Sirt3 Complexes with 4-Bromo-Resveratrol Reveal Binding Sites and Inhibition Mechanism***

*Nguyen et al, Chemistry and Biology 2013*

1. **hSirt3 affinities:**
* ACS2 peptide: Kd = 64.4 ± 9.1 µM
* 4-bromo-resveratrol: 7.6 ± 0.9 µM
* ACS2 peptide (in presence of 50 µM 4-bromo-resveratrol): Kd > 200 µM
* 4-bromo-resveratrol (in presence of 500 µM ACS2 peptide): Kd > 37 µM
* 4-bromo-resveratrol (in presence of 2 mM NAD): Kd > 50 µM
1. ***Mechanism of Human SIRT1 Activation by Resveratrol***

*Borra et al, JBC 2005*

1. **Sirt1 affinities:**
* Fluor de Lys-SIRT1 peptide: Kd = 504 µM
* Fluor de Lys-SIRT1 peptide (in presence of 200 µM resveratrol): Kd = 75 µM
* p53 peptide: Kd = 204 µM
* p53 peptide (in presence of 200 µM resveratrol): Kd = 210 µM