

S1 Figure

CLUSTAL Omega (version 1.2.4) multiple sequence alignment of the low-affinity and high affinity sites of human NRF2 (bold) which bind to the Keap 1 propeller protein and proposed similar sites in the *P. falciparum* WD40 repeat protein.

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NRF2      QQDMDLIDILWRQDIDLGVSR-EVFDfsQR-----RKEYELEKQKKL-- 54
PfW7K5T2  DKGLNSFIILWKINETSFLDPIKKFYYNCEENEKkrTHIYNNKKKNQDEYDINQINDNTI 177
          ::::: : ***: :      :. : * :. .      :. ** :::: :.

NRF2      EK--ERQE-----QLQKEQ-----EKA-FFAQLQLDEETGE 82
PfW7K5T2  DNSENGDAINNNVGYECIDISHDNRYICALTEEKIYIKSNTKYDDETGE 227
          :: * . :      : : :      ** : : : * :*****
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In NRF2 there are seven lysine (**K**) residues between the 2 sites, six of which are destined to be ubiquitinated in the propeller. In the *P. falciparum* WD40 repeat protein there are six Lys residues between the putative low and high affinity sites. A closely similar picture for putative low and high affinity sites in WD40 was confirmed in *P. reichenowi* and *P. gaboni*, although sufficient sequence was not available in the PlasmoDB database to confirm the similarity of the proposed high affinity binding site in other species.